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Proclamation 9256 of April 14, 2015**The President****Day of Remembrance for President Abraham Lincoln****By the President of the United States of America****A Proclamation**

President Abraham Lincoln believed that we are, at heart, one Nation and one people. At a time when America was torn apart and our very future was in doubt, he knew our country was more than a collection of States, and that we shared a bond that would not break. One hundred fifty years after President Lincoln's death, Americans join together across the Union he saved to honor his memory and celebrate the freedom for which he gave his last full measure of devotion.

A self-taught man, rugged rail-splitter, and humble lawyer from Springfield, Illinois, President Lincoln believed in the fierce independence that lies at the heart of the American experience. But he also knew that together, we can do great things—that it is through the accumulated toil and sacrifice of ordinary women and men that our country is perfected and our liberty preserved.

President Lincoln understood the immense sacrifices required to give meaning to our founding principles. With enduring faith and steady resolve, he led our Nation through Civil War, knowing the blood shed was in painful service to those same ideals. He sought to reunite our people not only in Government, but also in a freedom that knew no bounds of color or creed. It was in this spirit that he issued the Emancipation Proclamation, forever joining the cause of our Union with the advancement of liberty. As our Nation gave birth to a new era of freedom, President Lincoln charted a course that would help bind the wounds of a divided country and bring healing to a people who desperately needed it.

Even while his Presidency was characterized by war, his ambition was a just and lasting peace. Amid the discord of great conflict, President Lincoln demonstrated the wisdom to look forward. He knew a united America could serve the hopes of all its people if they seized the opportunity of their time. He established land-grant colleges and committed to a railroad connecting East to West, even as he fought to hold together North and South. He fueled new enterprises with a national currency, spurred innovation, and ignited America's imagination with a National Academy of Sciences.

As we reflect on the Great Emancipator, we are reminded that we will be remembered for what we choose to make of the moment we are given. President Lincoln has passed on a tremendous legacy to us, and we too are called to do great things. His example gives us confidence that whatever trials await us, this Nation and the freedom we cherish can, and will, prevail. Today, we reflect on the extraordinary progress he made possible, and with one voice, we rededicate ourselves to the work of ensuring a Government of the people, by the people, for the people, shall not perish from the earth.

NOW, THEREFORE, I, BARACK OBAMA, President of the United States of America, by virtue of the authority vested in me by the Constitution and the laws of the United States, do hereby proclaim April 15, 2015, as a Day of Remembrance for President Abraham Lincoln. I call upon all Americans to honor his life and legacy with appropriate programs, ceremonies, and activities. I also call upon the Governors of the United States

and its Territories, and appropriate officials of all units of government, to direct that the flag be flown at half-staff on the Day of Remembrance for President Abraham Lincoln. I further encourage all Americans to display the flag at half-staff from their homes and businesses on that day.

IN WITNESS WHEREOF, I have hereunto set my hand this fourteenth day of April, in the year of our Lord two thousand fifteen, and of the Independence of the United States of America the two hundred and thirty-ninth.



Rules and Regulations

Federal Register

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This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect, most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510.

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MERIT SYSTEMS PROTECTION BOARD

5 CFR Part 1201

Practices and Procedures

AGENCY: Merit Systems Protection Board.

ACTION: Final rule.

SUMMARY: The Merit Systems Protection Board (MSPB or the Board) hereby amends its rules of practice and procedure in order to correct a minor drafting error in the Board's regulations.

DATES: Effective April 17, 2015.

FOR FURTHER INFORMATION CONTACT:

William D. Spencer, Clerk of the Board, Merit Systems Protection Board, 1615 M Street NW., Washington, DC 20419; phone: (202) 653-7200; fax: (202) 653-7130; or email: mspb@mspb.gov.

SUPPLEMENTARY INFORMATION: On October 12, 2012, the MSPB published a final rule that made numerous amendments to its regulations. 77 FR 62350. In making these amendments, the MSPB inadvertently repeated the language of 5 CFR 1201.183(c)(2) in 5 CFR 1201.183(c)(3). Accordingly, the Board now removes 5 CFR 1201.183(c)(3) as unnecessary and duplicative.

This amendment removing 5 CFR 1201.183(c)(3) corrects a minor drafting error and makes no substantive change to the MSPB's regulations. As a result, the Board finds good cause to forego notice and comment rulemaking and to make this final rule effective upon publication.

List of Subjects in 5 CFR Part 1201

Administrative practice and procedure.

Accordingly, for the reasons set forth in the preamble, the Board amends 5 CFR part 1201 as follows:

PART 1201—PRACTICES AND PROCEDURES

■ 1. The authority citation for 5 CFR part 1201 continues to read as follows:

Authority: 5 U.S.C. 1204, 1305, and 7701, and 38 U.S.C. 4331, unless otherwise noted.

§ 1201.183 [Amended]

■ 2. Amend § 1201.183 by removing paragraph (c)(3).

William D. Spencer,

Clerk of the Board.

[FR Doc. 2015-08880 Filed 4-16-15; 8:45 am]

BILLING CODE 7400-01-P

BUREAU OF CONSUMER FINANCIAL PROTECTION

12 CFR Part 1026

[Docket No. CFPB-2015-0006]

RIN 3170-AA50

Submission of Credit Card Agreements Under the Truth in Lending Act (Regulation Z)

AGENCY: Bureau of Consumer Financial Protection.

ACTION: Final rule.

SUMMARY: The Bureau of Consumer Financial Protection (Bureau) is amending Regulation Z, which implements the Truth in Lending Act, and the official interpretation to that regulation, to temporarily suspend card issuers' obligations to submit credit card agreements to the Bureau for a period of one year (*i.e.*, four quarterly submissions), in order to reduce burden while the Bureau works to develop a more streamlined and automated electronic submission system. Other requirements, including card issuers' obligations to post currently-offered agreements on their own Web sites, remain unaffected.

DATES: This final rule is effective on April 17, 2015.

FOR FURTHER INFORMATION CONTACT: Thomas L. Devlin, Counsel, or Kristine M. Andreassen, Senior Counsel, Office of Regulations, at (202) 435-7700.

SUPPLEMENTARY INFORMATION:

I. Summary of the Rule

The Truth in Lending Act (TILA), in section 122(d), requires creditors to post

agreements for open-end consumer credit card plans on the creditors' Web sites and to submit those agreements to the Bureau. 15 U.S.C. 1632(d). These provisions are implemented in § 1026.58 of Regulation Z.¹ 12 CFR 1026.58. The Bureau is finalizing amendments that it proposed in February 2015² to suspend temporarily the requirement in § 1026.58(c) that card issuers submit credit card agreements to the Bureau for a period of one year (*i.e.*, four quarterly submissions), in order to reduce burden while the Bureau works to develop a more streamlined and automated electronic submission system. Specifically, the Bureau is suspending the submissions that would otherwise have been due to the Bureau by the first business day on or after April 30, 2015; July 31, 2015; October 31, 2015; and January 31, 2016. Beginning with the submission due on the first business day on or after April 30, 2016, card issuers shall resume submitting credit card agreements on a quarterly basis to the Bureau. The Bureau expects to consult with interested stakeholders before that date regarding resumption of the submission requirements and technical specifications for the new system. Other requirements under § 1026.58, including card issuers' obligations to post currently-offered agreements on their own Web sites under § 1026.58(d), remain unaffected.

II. Background

A. The Statute and Regulation

In 2009, Congress enhanced protections for credit cards in the Credit Card Accountability Responsibility and Disclosure Act (CARD Act), which it enacted to "establish fair and transparent practices related to the extension of credit" in the credit card market.³ The Board of Governors of the Federal Reserve System (Board) generally implemented the CARD Act's provisions in subpart G of Regulation Z. Section 204 of the CARD Act added new TILA section 122(d) to require creditors to post agreements for open-end consumer credit card plans on the

¹ Section 1026.58 uses the terms card issuer (or issuer) and credit card agreement (or agreement) in lieu of the terms creditor and open-end consumer credit card plan, respectively, that are used in section 122(d) of TILA.

² 80 FR 10417 (Feb. 26, 2015).

³ Public Law 111-24, 123 Stat. 1734 (2009).

creditors' Web sites and to submit those agreements to the Board for posting on a publicly available Web site established and maintained by the Board. 15 U.S.C. 1632(d).

Specifically, TILA section 122(d)(1) requires each creditor to post its credit card agreements on its own Web site, and section 122(d)(2) requires the creditor to provide its agreements to the Bureau (formerly the Board). TILA section 122(d)(3) requires the Bureau (formerly the Board) to establish and maintain on its publicly available Web site a central repository of the agreements it receives under section 122(d)(2). The Board implemented these provisions in 12 CFR 226.58. With the adoption of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), authority to implement TILA transferred to the Bureau⁴ and the Bureau renumbered this provision in Regulation Z as § 1026.58.⁵

While TILA section 122(d) requires that creditors provide agreements to the Bureau, it does not specify the frequency or timing for these submissions. The implementing regulations in Regulation Z provide that submission of currently-offered agreements must be made quarterly. *See* § 1026.58(c)(1). These quarterly submissions must be sent to the Bureau no later than the first business day on or after January 31, April 30, July 31, and October 31 of each year. The regulation also provides that, except in certain circumstances, card issuers must post and maintain on their publicly available Web sites the credit card agreements that the issuers are required to submit to the Bureau. *See* § 1026.58(d).

Under the current process, which has been used by the Bureau since its inception, card issuers submit agreements and agreement information to the Bureau manually via email. The Bureau believes this process may be unnecessarily cumbersome for issuers and may make issuers' own internal tracking of previously submitted agreements difficult. In addition, the current process for Bureau staff to manually review, catalog, and upload new or revised agreements to the Bureau's Web site, and to remove outdated agreements, can extend for several months after the quarterly submission deadline.⁶ The Bureau is working to develop a more streamlined

and automated electronic submission system which would allow issuers to upload agreements directly to the Bureau's database. The Bureau intends for its new submission system to be less burdensome and easier for issuers to use. It also intends for the new system to enable faster posting of new and revised agreements on the Bureau's Web site.

In order to reduce the burden on card issuers of continuing to use manual submission methods while the Bureau works to design, test, and implement a more streamlined and automated electronic submission system, the Bureau is temporarily suspending issuers' obligations to submit credit card agreements to the Bureau for a period of one year (*i.e.*, four quarterly submissions), as described in more detail in the section-by-section analysis below. Issuers' obligations to post currently-offered agreements on their own Web sites are unaffected.

The Bureau recognizes that its temporary suspension of the requirement that card issuers submit credit card agreements to the Bureau will temporarily reduce the access consumers, other external parties, and the Bureau itself have to a single repository of the agreements that would have been submitted during this one-year period. However, the Bureau expects that this temporary reduction will not impose significant costs on consumers, other external parties, or the Bureau itself for at least two key reasons. First, the Bureau is not modifying the requirement that card issuers post currently-offered agreements on their own Web sites in a manner that is prominent and readily accessible by the public (§ 1026.58(d)) or that card issuers make all open agreements available on their Web sites or to cardholders upon request (§ 1026.58(e)).

Second, the Bureau intends to manually compile credit card agreements from certain large card issuers' Web sites as of approximately September 2015. Given the longstanding concentration in the credit card market, the Bureau believes that uploading agreements obtained from a relatively small number of issuers' Web sites to the Bureau's own Web site is sufficient to provide the agreement terms available to the overwhelming majority of credit card consumers in the U.S. as of the mid-point of the proposed suspension period.⁷ This will allow consumers to

continue to use the Bureau's Web site to effectively compare agreements offered by various issuers.

Overall, the Bureau expects that the marginal costs to consumers and other external parties from interrupted access during the suspension period are outweighed by the anticipated benefits of increased usability of the agreements and expedited availability of agreements on the Bureau's Web site after the Bureau implements a more streamlined and automated submission system. The Bureau intends to explore potential functionality for the new system that would improve external parties' ability to use the information efficiently and effectively, such as through improved reporting capabilities. In addition, by streamlining the submission process, the Bureau intends for the new system to also reduce burden on card issuers.

B. Comments on the Proposed Rule

On February 26, 2015, the Bureau proposed to amend § 1026.58, the Regulation Z provision on internet availability of credit card agreements, to temporarily suspend the requirement in § 1026.58(c) that card issuers submit credit card agreements to the Bureau for a period of one year (*i.e.*, four quarterly submissions), in order to reduce burden while the Bureau works to develop a more streamlined and automated electronic submission system. The comment period closed on March 13, 2015. In response to the proposal, the Bureau received seven comments from financial institutions, credit union trade associations, and others. The Bureau discusses relevant comments in the section-by-section analysis below. Several commenters also urged the Bureau to take other actions beyond the scope of the proposal.

III. Legal Authority

The Bureau is issuing this final rule pursuant to its authority under TILA sections 105(a) and 122(d)(5). TILA section 105(a) authorizes the Bureau to prescribe regulations to carry out the purposes of TILA. These regulations may contain such classifications, differentiations, or other provisions, and may provide for such adjustments and exceptions for any class of transactions, that in the Bureau's judgment are necessary or proper to effectuate the purposes of TILA, facilitate compliance with TILA, or prevent circumvention or evasion of TILA. TILA section 122(d)(5) authorizes the Bureau to promulgate regulations to implement section 122(d), including, among other things, establishing exceptions to TILA sections 122(d)(1) and (2) in any case where the

⁴ Public Law 111–203, section 1100A, 124 Stat. 2081 (2010) (codified at 15 U.S.C. 1602 *et seq.*).

⁵ 76 FR 79768 (Dec. 22, 2011).

⁶ The Bureau's database of credit card agreements is available at <http://www.consumerfinance.gov/credit-cards/agreements/>.

⁷ *See, e.g.,* CFPB, *CARD Act Report*, at 13–14 (Oct. 1, 2013), available at http://files.consumerfinance.gov/f/201309_cfpb_card-act-report.pdf.

administrative burden outweighs the benefits of increased transparency.

The Bureau is exercising its rulemaking authority pursuant to TILA sections 105(a) and 122(d)(5) to, in effect, change the period for creditors' submission of agreements to the Bureau from quarterly to annually, for a period of one year. The Bureau is also exercising its exception authority under TILA sections 105(a) and 122(d)(5) to temporarily suspend the agreement submission requirements in § 1026.58(c), as it concludes that the burden to issuers of continuing to submit agreements under the current cumbersome, manual process while the Bureau works to develop a more streamlined and automated electronic submission system outweighs the benefits of transparency to consumers and other external parties of access to those agreements via the Bureau's Web site during the suspension period. Further, the Bureau believes that a temporary suspension will effectuate the purposes of TILA and facilitate compliance therewith.

IV. Section-by-Section Analysis

Regulation Z

Subpart G—Special Rules Applicable to Credit Card Accounts and Open-End Credit Offered to College Students

Section 1026.58 Internet Posting of Credit Card Agreements 58(g) Temporary Suspension of Agreement Submission Requirement Proposed Rule

As discussed above, § 1026.58 describes how card issuers must comply with the provisions of TILA, as amended by the CARD Act, that require creditors to post agreements for open-end consumer credit card plans on the creditors' Web sites and to submit those agreements to the Bureau. Specifically, § 1026.58(c) governs submission of agreements to the Bureau, § 1026.58(d) governs the requirement that issuers post currently-offered agreements on the issuers' own Web sites, and § 1026.58(e) governs the requirement that issuers make cardholder agreements for currently open accounts available to cardholders.

In the proposed rule, the Bureau proposed to add § 1026.58(g) to § 1026.58. The Bureau proposed, in § 1026.58(g)(1), to temporarily suspend the quarterly credit card agreement submission requirement in § 1026.58(c) for submissions that would otherwise be due to the Bureau by the first business day on or after April 30, 2015; July 31, 2015; October 31, 2015; and January 31, 2016. The Bureau proposed to add comments 58(g)-1 and -2 to further

clarify the terms of the suspension, and to explain in more detail what issuers must include in their submissions due on the first business day on or after April 30, 2016.

Section 1026.58(d) requires a card issuer to post and maintain on its publicly available Web site the credit card agreements that the issuer is required to submit to the Bureau under § 1026.58(c). The Bureau proposed § 1026.58(g)(2) to provide that the suspended submission requirement in proposed § 1026.58(g)(1) would not affect card issuers' obligations to post agreements on their own Web sites as required by § 1026.58(d) during the temporary suspension period. The Bureau proposed comment 58(g)-3 to further explain this provision and provide several examples.

Comments

The Bureau solicited comment on its proposal to temporarily suspend the obligation card issuers would otherwise have had under § 1026.58(c) to submit credit card agreements to the Bureau for the four quarterly submissions that would otherwise be due to the Bureau by the first business day on or after April 30, 2015; July 31, 2015; October 31, 2015; and January 31, 2016. Commenters generally supported the proposed rule, and no commenter opposed the proposed temporary suspension. All of the trade association commenters stated that they found the current manual submission system for credit card agreements to be cumbersome. Those same commenters, along with others, agreed that issuers' continuing obligation to post currently-offered credit card agreements on their Web sites would ensure that most interested consumers could access available credit card agreements.

Trade association commenters urged that the Bureau should consult with financial institutions before finalizing new technical specifications for the submission of credit card agreements, including one commenter who supported releasing those specifications through the notice-and-comment process. The Bureau did not solicit comment regarding the technical specifications that will be associated with a new submission system; nonetheless, the Bureau expects to consult with financial institutions, trade associations, or both to test and refine the system before using it with industry generally. The Bureau does not anticipate soliciting comment regarding the technical specifications that will be associated with a new submission system.

A commenter from an academic public policy center suggested that, rather than temporarily suspending the submission requirement for a period of one year, the Bureau should remove the submission requirement entirely.⁸

One commenter addressed an option that the Bureau considered but ultimately did not propose, under which credit card issuers would be required, at the end of the one-year suspension period, to submit all agreements that they would have been required to submit during the suspension period. That commenter argued that the burden imposed by such a requirement would not be justified by the limited benefit resulting from a more complete database of agreements.

Final Rule

The Bureau is adopting § 1026.58(g), and the proposed commentary to that section, as proposed. As noted above, none of the comments received opposed the one-year temporary suspension, and most supported the Bureau's efforts to develop a more streamlined and efficient electronic submission system for credit card agreements. None of the comments discussed the specific language of the proposed regulatory text or commentary. After reviewing the comments received in response to the proposal, the Bureau believes that a one-year suspension represents the best balance between fulfilling the Congressional mandate in TILA section 122(d) and easing the compliance burden on credit card issuers arising from the manual submission system inherited by the Bureau while the Bureau works to develop a more streamlined and automated electronic submission system.

V. Effective Date

The Bureau proposed to make its temporary suspension of § 1026.58(c) effective immediately after publication of this final rule in the **Federal Register**. The Bureau sought comment on the proposed effective date, including on whether a later effective date would be more appropriate. None of the comments received by the Bureau explicitly addressed the proposed effective date.

An agency must allow 30 days before a substantive rule is made effective, unless, among other things, the rule "grants or recognizes an exemption or relieves a restriction" ⁹ or "as otherwise provided by the agency for good cause

⁸ As noted above, the submission requirement was mandated by Congress's amendments to TILA in the CARD Act.

⁹ 5 U.S.C. 553(d)(1).

found and published with the rule.”¹⁰ The Bureau believes that this rule recognizes an exemption from or relieves a restriction on issuers’ obligations to submit credit card agreements to the Bureau, and does not create any new requirement. Accordingly, the 30-day delay in effective date does not apply and the Bureau finds good cause to make this rule effective immediately upon publication in the **Federal Register**, in order to reduce burden while the Bureau works to develop a more streamlined and automated electronic submission system for credit card agreements.

VI. Section 1022(b)(2) of the Dodd-Frank Act

A. Overview

In developing this rule, the Bureau has considered potential benefits, costs, and impacts.¹¹ The Bureau has consulted, or offered to consult with, the prudential regulators, the Department of the Treasury, and the Federal Trade Commission, including regarding consistency with any prudential, market, or systemic objectives administered by such agencies.

Pursuant to TILA section 122(d)(3), the Bureau maintains on its public Web site a repository of the consumer credit card agreements that card issuers submit pursuant to TILA section 122(d)(2), as implemented in § 1026.58(c). The electronic folders in the repository are organized by quarter, back to the third quarter of 2011, reflecting the transfer of authority to implement TILA from the Board to the Bureau pursuant to the Dodd-Frank Act. For each quarter, the repository contains a copy of each agreement, in PDF format, that was available to consumers as of the end of that quarter. The repository also contains, for each quarter, a spreadsheet that provides certain identifying information about each agreement and the issuer thereof.

The Bureau proposed to amend § 1026.58(g) to temporarily suspend the requirement in § 1026.58(c) for card issuers to submit credit card agreements to the Bureau. The Bureau is finalizing the amendments to § 1026.58(g) as

proposed. Card issuers will not be required to make quarterly submissions to the Bureau for the submissions that would otherwise be due by the first business day on or after April 30, 2015; July 31, 2015; October 31, 2015; and January 31, 2016. Consequently, the Bureau will not provide these agreements on its Web site. As discussed previously, however, the Bureau intends to manually compile credit card agreements from certain large card issuer Web sites as of approximately September 2015 and post those agreements on its Web site. Card issuers will resume submitting agreements on a quarterly basis to the Bureau beginning with the submission due by the first business day on or after April 30, 2016. The Bureau is not modifying the requirement that card issuers post currently-offered agreements on their own Web sites in a manner that is prominent and readily accessible by the public (§ 1026.58(d)) or that card issuers make all open agreements available on their Web sites or to cardholders upon request (§ 1026.58(e)).

B. Potential Benefits and Costs to Consumers and Covered Persons

The Bureau is not aware of any significant costs to consumers that might arise from the temporary suspension of the quarterly submission requirement and the absence of these agreements on the Bureau’s Web site. While the Bureau’s Web site can assist consumers in comparing credit card agreements when shopping for a new card, the Bureau believes that most consumers are not likely to use the repository to identify desirable credit cards, in part because they would not know if they qualified for the cards they identified. The Bureau believes that consumers are more likely to identify a number of cards for which they qualify before comparing the terms and conditions for those cards. These terms and conditions will remain readily available to consumers on the issuers’ Web sites. Similarly, a consumer who wanted to replace a lost agreement would likely find it easier to contact the issuer than to search the repository because the agreement might no longer be available to new cardholders, in which case the consumer would need to search across multiple quarters to find the agreement, and even then might lack confidence that she had found the version of the agreement that applied to her.

On the other hand, the Bureau recognizes that consumers who would qualify for almost any card on the market and who want to learn about the

features of a large number of products might find the repository useful. The final rule might increase the cost to these consumers of searching for desirable credit cards. The Bureau believes that this cost would be small, however, given that the Bureau is suspending the submission requirement for just four quarters. In addition, as discussed in more detail below, the Bureau will manually collect agreements from certain large issuers’ Web sites at the midpoint of the suspension period, which will mitigate this cost to consumers. The Bureau requested comment on this point but did not receive any responses. Similarly, the Bureau recognizes the possibility that entities may use the information in the repository to develop more competitive products or extract information that they could sell or otherwise provide to consumers or third parties. However, the Bureau believes that this is unlikely given that the agreements, while generally in searchable PDF format, do not contain uniform data or text fields that would provide the same type of information in fixed locations across files. The Bureau requested comment on this point as well but did not receive any responses. A commenter from an academic public policy center noted that the information that these entities need would remain on the issuers’ Web sites.

The Bureau believes that the final rule will provide issuers with a minor but tangible benefit. For the third quarter of 2014, 446 issuers had 1,833 agreements in the Bureau’s database. While 169 issuers had just one agreement, the median number of agreements per issuer was two and the average was four. Four issuers had over 50 agreements. In the third quarter alone, 103 issuers submitted 429 agreements; the median and mean were again two and four, respectively. Three issuers submitted over 25 agreements. All issuers will be able to suspend their submissions for four quarters, which will remove some compliance burden. The Bureau believes that the burden is small on average, although it may be higher for the entities that provide a large number of agreements.¹² The Bureau requested

¹² The Bureau notes that card issuers who submit a smaller number of agreements to the Bureau, but that only submit new and amended agreements and notice of withdrawn agreements, may have higher compliance costs than issuers who resubmit each quarter all agreements that are currently available to consumers. Thus, using the number of agreements submitted each quarter does not strictly track compliance cost. However, the Bureau expects that the number of agreements submitted and compliance cost are correlated even for those who submit all available agreements each quarter because they still have to ensure they are not

¹⁰ 5 U.S.C. 553(d)(3).

¹¹ Specifically, section 1022(b)(2)(A) of the Dodd-Frank Act calls for the Bureau to consider the potential benefits and costs of a regulation to consumers and covered persons, including the potential reduction of access by consumers to consumer financial products or services; the impact on depository institutions and credit unions with \$10 billion or less in total assets as described in section 1026 of the Dodd-Frank Act; and the impact on consumers in rural areas.

comment on this point but did not receive any responses.

As noted above, the Bureau recognizes the possibility that entities could use the information in the repository to develop more competitive products or extract information that they could sell or otherwise provide to consumers or third parties. However, as mentioned above, the Bureau believes that this is unlikely given the difficulties in using files in PDF format for this purpose. To the extent that entities are inclined to use the files in the repository to extract information, the Bureau believes that manual collection of the credit card agreements from certain large card issuer Web sites as of approximately September 2015 and posting those agreements on the Bureau Web site will mitigate the impact of the proposed rule on these entities.

A commenter from an academic public policy center argued that the submission and record repository requirements in TILA sections 122(d)(2)–(3), implemented in § 1026.58(c), impose costs without evidence of benefits (and most likely with few benefits). This commenter recommended that the Bureau suspend the submission requirement permanently instead of temporarily. The commenter did not, however, dispute the Bureau's consideration of the benefits and costs of § 1026.58(g) relative to the baseline defined by the current statute and implementing regulation. More generally, the Bureau seeks through this rulemaking and the associated development of a more streamlined and automated electronic submission system to increase the benefits and reduce the costs of the submission and repository requirements, and is not considering other changes at this time.

As an alternative, the Bureau considered coupling the temporary suspension with a requirement to provide the Bureau, after the suspension expired, with the agreements that they would have been required to submit if not for the suspension. Compared to the final rule, this alternative would have imposed smaller costs on consumers and provided smaller benefits to issuers. Since the costs to consumers under the final rule are small to begin with, the Bureau believes that the final rule is superior to the alternative. A commenter from an academic public policy center opposed this alternative, arguing that the additional compliance costs associated with requiring issuers to collect and submit the additional

agreement was not justified by the marginal benefit to consumers.

C. Impact on Covered Persons With No More Than \$10 Billion in Assets

The majority of banks and credit unions that provide agreements under § 1026.58(c) have no more than \$10 billion in assets. Thus, the majority of banks and credit unions that will benefit from the final rule have no more than \$10 billion in assets. On the other hand, larger banks and credit unions generally provide the Bureau with more agreements each quarter. Thus, the final rule will generally provide larger banks and credit unions with a greater reduction in burden compared to that obtained by banks and credit unions with no more than \$10 billion in assets.

One trade association commenter noted the discussion of these effects in the proposal and urged the Bureau to consider the implementation and ongoing costs associated with the new process. As explained in the Background section of the proposed rule, the Bureau intends for its new submission system to be less burdensome and easier for issuers to use. Thus, the Bureau intends the new system to reduce ongoing costs to covered persons relative to the baseline. The Bureau expects that any one-time transition cost will be small and quickly recovered through lower ongoing costs.

D. Impact on Access to Credit

The Bureau does not believe that there will be an adverse impact on access to credit, or any other consumer financial products or services, resulting from the final rule. The final rule imposes no direct requirements on consumer financial products or services or providers of consumer financial products or services or on the eligibility of consumers for consumer financial products or services. As discussed above, the final rule imposes at most a minor additional cost on certain consumers searching for a credit card.

As noted above, the Bureau recognizes the possibility that entities could use the information in the repository to develop more competitive products or extract information that they could sell or otherwise provide to consumers or third parties. However, the Bureau believes that this is unlikely given the difficulties in using files in PDF format for this purpose and the fact that the suspension would last for just four quarters. Thus, the final rule should not inhibit activities that would improve access to credit such as the development of more competitive credit products or products that would reduce search costs.

E. Impact on Consumers in Rural Areas

The Bureau does not believe that the final rule will have a unique impact on consumers in rural areas.

VII. Regulatory Flexibility Analysis

The Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996, requires each agency to consider the potential impact of its regulations on small entities, including small businesses, small governmental units, and small nonprofit organizations. The RFA defines a “small business” as a business that meets the size standard developed by the Small Business Administration pursuant to the Small Business Act.

The RFA generally requires an agency to conduct an initial regulatory flexibility analysis (IRFA) and a final regulatory flexibility analysis (FRFA) of any rule subject to notice-and-comment rulemaking requirements, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. The Bureau also is subject to certain additional procedures under the RFA involving the convening of a panel to consult with small business representatives prior to proposing a rule for which an IRFA is required.

Neither an IRFA nor a FRFA is required for this rule because it will not have a significant economic impact on a substantial number of small entities. The Bureau does not expect the rule to impose costs on small entities. As discussed above, the Bureau believes that the rule will cause a small reduction in costs on all issuers, including small entity issuers, who would otherwise be required to submit agreements to the Bureau.

Accordingly, the undersigned certifies that the final rule will not have a significant economic impact on a substantial number of small entities.

VIII. Paperwork Reduction Act Analysis

Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501 *et seq.*), Federal agencies are generally required to seek the Office of Management and Budget (OMB) approval for information collection requirements prior to implementation. This final rule will amend Regulation Z, 12 CFR part 1026. The collections of information affected by this final rule have been previously reviewed and approved by OMB in accordance with the PRA and assigned OMB Control Number 3170–0052. Under the PRA, the Bureau may not conduct or sponsor and,

_____ sending agreements that are no longer offered to new customers or are entirely defunct.

notwithstanding any other provision of law, a person is not required to respond to an information collection unless the information collection displays a valid control number assigned by OMB. The Bureau has determined that this final rule will not impose any new recordkeeping, reporting, or disclosure requirements on covered entities or members of the public that would constitute collections of information requiring approval under the PRA.

List of Subjects in 12 CFR Part 1026

Advertising, Consumer protection, Credit, Credit unions, Mortgages, National banks, Reporting and recordkeeping requirements, Savings associations, Truth in lending.

Authority and Issuance

For the reasons set forth in the preamble, the Bureau amends 12 CFR part 1026, as follows:

PART 1026—TRUTH IN LENDING (REGULATION Z)

1. The authority citation for part 1026 continues to read as follows:

Authority: 12 U.S.C. 2601, 2603–2605, 2607, 2609, 2617, 5511, 5512, 5532, 5581; 15 U.S.C. 1601 et seq.

Subpart G—Special Rules Applicable to Credit Card Accounts and Open-End Credit Offered to College Students

2. Section 1026.58 is amended by adding paragraph (g) to read as follows:

§ 1026.58 Internet posting of credit card agreements.

* * * * *

(g) Temporary suspension of agreement submission requirement—(1) Quarterly submissions. The quarterly submission requirement in paragraph (c) of this section is suspended for the submissions that would otherwise be due to the Bureau by the first business day on or after April 30, 2015; July 31, 2015; October 31, 2015; and January 31, 2016.

(2) Posting of agreements offered to the public. Nothing in paragraph (g)(1) of this section shall affect the agreement posting requirements in paragraph (d) of this section.

3. In Supplement I to Part 1026, under Section 1026.58—Internet Posting of Credit Card Agreements, add 58(g) Temporary Suspension of Agreement Submission Requirement to read as follows:

Supplement I to Part 1026—Official Interpretations

* * * * *

Section 1026.58—Internet Posting of Credit Card Agreements

* * * * *

58(g) Temporary Suspension of Agreement Submission Requirement

1. Suspended quarterly submission requirement. Pursuant to § 1026.58(g)(1), card issuers are not required to make quarterly submissions to the Bureau, as otherwise required by § 1026.58(c), for the submissions that would otherwise be due by the first business day on or after April 30, 2015; July 31, 2015; October 31, 2015; and January 31, 2016. Specifically, a card issuer is not required to submit information about the issuer and its agreements pursuant to § 1026.58(c)(1)(i), new credit card agreements pursuant to § 1026.58(c)(1)(ii), amended agreements pursuant to § 1026.58(c)(1)(iii) and (c)(3), or notification of withdrawn agreements pursuant to § 1026.58(c)(1)(iv) and (c)(4) through (7) for those four quarters.

2. Resuming submission of credit card agreements to the Bureau. Beginning with the submission due on the first business day on or after April 30, 2016, card issuers shall resume submitting credit card agreements on a quarterly basis to the Bureau pursuant to § 1026.58(c). A card issuer shall submit agreements for the prior calendar quarter (that is, the calendar quarter ending March 31, 2016), as specified in § 1026.58(c)(1)(ii) through (iv) and (c)(3) through (7), to the Bureau no later than the first business day on or after April 30, 2016.

i. Specifically, the submission due on the first business day on or after April 30, 2016 shall contain, as applicable:

A. Identifying information about the card issuer and the agreements submitted, including the issuer's name, address, and identifying number (such as an RSSD ID number or tax identification number), pursuant to § 1026.58(c)(1)(i);

B. The credit card agreements that the card issuer offered to the public as of the last business day of the calendar quarter ending March 31, 2016 that the card issuer had not previously submitted to the Bureau as of the first business day on or after January 31, 2015, pursuant to § 1026.58(c)(1)(ii);

C. Any credit card agreement previously submitted to the Bureau that was amended since the last business day of the calendar quarter ending December 31, 2014 and that the card issuer offered to the public as of the last business day of the calendar quarter ending March 31, 2016, pursuant to § 1026.58(c)(1)(iii) and (c)(3); and

D. Notification regarding any credit card agreement previously submitted to the Bureau that the issuer is withdrawing, pursuant to § 1026.58(c)(1)(iv) and (c)(4) through (7).

ii. In lieu of the submission described in comment 58(g)–2.i.B through D, § 1026.58(c)(1) permits a card issuer to submit to the Bureau a complete, updated set of the credit card agreements the card issuer offered to the public as of the calendar quarter ending March 31, 2016. See comment 58(c)(1)–3.

3. Continuing obligation to post agreements on a card issuer's own Web site. Section 1026.58(d) requires a card issuer to post and

maintain on its publicly available Web site the credit card agreements that the issuer is required to submit to the Bureau under § 1026.58(c). Pursuant to § 1026.58(g)(2), during the temporary suspension period set forth in § 1026.58(g)(1), a card issuer shall continue to post its agreements to its own publicly available Web site as required by § 1026.58(d) using the agreements it would have otherwise submitted to the Bureau under § 1026.58(c). For example, for purposes of § 1026.58(d)(4), a card issuer must continue to update the agreements posted on its own Web site at least as frequently as the quarterly schedule required for submission of agreements to the Bureau set forth in § 1026.58(c)(1), notwithstanding the temporary suspension of submission requirements in § 1026.58(g)(1). Similarly, for purposes of § 1026.58(d)(2), agreements posted by a card issuer on its own Web site must continue to conform to the form and content requirements set forth in § 1026.58(c)(8).

* * * * *

Dated: April 13, 2015.

Richard Cordray,

Director, Bureau of Consumer Financial Protection.

[FR Doc. 2015–09000 Filed 4–15–15; 4:15 pm]

BILLING CODE 4810-AM-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 71 and 73

[Docket No. FAA–2015–0924; Airspace Docket No. 15–AWA–2]

Amendment of Authority Citation for Part 71: Designation of Class A, B, C, D, and E Airspace Areas; Air Traffic Service Routes; and Reporting Points, and Part 73: Special Use Airspace

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule, technical amendment.

SUMMARY: The FAA is amending the authority citation for part 71 and part 73 by adding an additional citation at the beginning of the authority citation string. This action updates and clarifies the Administrator's rulemaking authority to be consistent with other parts of Title 14, Code of Federal Regulations.

DATES: Effective 0901 UTC, April 17, 2015.

ADDRESSES: For 14 CFR part 71: FAA Order 7400.9Y, Airspace Designations and Reporting Points and subsequent amendments can be viewed online at http://www.faa.gov/airtraffic/publications/. FAA Order 7400.9, Airspace Designations and Reporting

Points, is published yearly and effective on September 15. For further information, you can contact the Airspace Policy and ATC Regulations Group, Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 29591; telephone: 202-267-8783.

For 14 CFR part 73: FAA Order 7400.8X, Special Use Airspace, can be viewed online at the FAA's Air Traffic Plans and Publications Web site at https://www.faa.gov/airports/airtraffic/air_traffic/publications/. For further information, contact the Airspace Policy and Regulations Group, Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591; telephone (202) 267-8783.

FOR FURTHER INFORMATION CONTACT:

Robert Frenzel, Manager, Rulemaking Division, Office of the Chief Counsel, Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591, (telephone: 202-267-3073).

SUPPLEMENTARY INFORMATION:

The Rule

This amendment to Title 14, Code of Federal Regulations (14 CFR) part 71 amends the authority citation for part 71; Designation of Class A, B, C, D, and E Airspace Areas; Air Traffic Service routes; and Reporting Points, and also for part 73, Special Use Airspace, by adding an additional citation, 49 U.S.C. 106(f), at the beginning of the authority citation string. This action updates and clarifies the Administrator's rulemaking authority to be consistent with other parts of Title 14, Code of Federal Regulations.

This is an administrative change reflecting clarification of rulemaking authority, therefore, notice and public procedure under 5 U.S.C. 553(b) is unnecessary. Also, as provided in 5 U.S.C. 553(d), this rule is being published with an effective date of less than 30 days in order to keep current airspace actions previously published in the **Federal Register** with later effective dates, and other airspace actions soon to be published.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current, is non-controversial and unlikely to result in adverse or negative comments. It, therefore, (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44

FR 11034; February 26, 1979); and (3) does not warrant preparation of a Regulatory Evaluation as the anticipated impact is so minimal. Since this is a routine matter that only affects air traffic procedures and air navigation, it is certified that this rule, when promulgated, does not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the United States Code. Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority. This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart I, Section 40103. Under that section, the FAA is charged with prescribing regulations to assign the use of airspace necessary to ensure the safety of aircraft and the efficient use of airspace. This regulation is within the scope of that authority as it further describes the authority of the FAA Administrator for part 71 and part 73 rulemaking.

Environmental Review

The FAA has determined that this action qualifies for categorical exclusion under the National Environmental Policy Act in accordance with FAA Order 1050.1E, "Environmental Impacts: Policies and Procedures," paragraph 311a. This airspace action is not expected to cause any potentially significant environmental impacts, and no extraordinary circumstances exist that warrant preparation of an environmental assessment.

Lists of Subjects

14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).

14 CFR Part 73

Airspace, Prohibited areas, Restricted areas.

Adoption of the Amendment

In consideration of the foregoing, the Federal Aviation Administration amends 14 CFR part 71 and part 73 as follows:

PART 71—DESIGNATION OF CLASS A, B, C, D, AND E AIRSPACE AREAS; AIR TRAFFIC SERVICE ROUTES; AND REPORTING POINTS

■ 1. The authority citation for part 71 is amended to read as follows:

Authority: 49 U.S.C. 106(f), 106(g), 40103, 40113, 40120, E.O. 10854, 24 FR 9565, 3 CFR, 1959-1963 Comp., p. 389.

PART 73—SPECIAL USE AIRSPACE

■ 2. The authority citation for part 73 is amended to read as follows:

Authority: 49 U.S.C. 106(f), 106(g), 40103, 40113, 40120, E.O. 10854, 24 FR 9565, 3 CFR, 1959-1963 Comp., p. 389.

Issued in Washington, DC, on April 10, 2015.

Mark W. Bury,

Assistant Chief Counsel, Regulations Division.

[FR Doc. 2015-08781 Filed 4-16-15; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF COMMERCE

Bureau of Industry and Security

15 CFR Part 774

The Commerce Control List

CFR Correction

In Title 15 of the Code of Federal Regulations, parts 300 to 799, revised as of January 1, 2015, on page 941, in supplement no. 1 to part 774, in ECCN 6C992, under the List of Items Controlled, correct the Items paragraph to read as follows: "*Items:* The list of items controlled is contained in the ECCN heading."

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SOCIAL SECURITY ADMINISTRATION

20 CFR Part 404

[Docket No. SSA-2010-0055]

RIN 0960-AF88

Revised Medical Criteria for Evaluating Hematological Disorders

AGENCY: Social Security Administration.

ACTION: Final rules.

SUMMARY: We are revising the criteria in the Listing of Impairments (listings) that we use to evaluate cases involving hematological disorders in adults and children under titles II and XVI of the Social Security Act (Act). These revisions reflect our adjudicative experience, advances in medical knowledge, diagnosis, and treatment, and public comments we received in response to a Notice of Proposed Rulemaking (NPRM).

DATES: These rules are effective May 18, 2015.

FOR FURTHER INFORMATION CONTACT: Cheryl Williams, Office of Medical Policy, Social Security Administration, 6401 Security Boulevard, Baltimore, Maryland 21235-6401, (410) 965-1020. For information on eligibility or filing for benefits, call our national toll-free number, 1-800-772-1213, or TTY 1-800-325-0778, or visit our Internet Web site, Social Security Online, at <http://www.socialsecurity.gov>.

SUPPLEMENTARY INFORMATION:

Background

We are revising and making final the rules for evaluating hematological disorders that we proposed in an NPRM published in the **Federal Register** on November 19, 2013 at 78 FR 69324.

Even though these rules will not go into effect until 30 days after publication of this document, for clarity, we refer to them in this preamble as the “final” rules. We refer to the rules in effect prior to that time as the “prior” rules.

In the preamble to the NPRM, we discussed the revisions we proposed for the hematological disorders body system. Since we are mostly adopting those revisions as we proposed them, we are not repeating that information here. Interested readers may refer to the preamble to the NPRM for this information, available at <http://www.regulations.gov>.

We are making several changes in these final rules from the NPRM based upon some of the public comments we received. We explain these changes below in the “Summary of Public Comments on the NPRM” section of this preamble.

Why are we revising the listings for hematological disorders?

We developed these final rules as part of our ongoing review of the listings. When we last comprehensively revised the listings for the hematological disorders body system in final rules published on December 6, 1985, we indicated in the preamble to those rules that we would carefully monitor these listings to ensure that they continue to meet program purposes, and that we would update them if warranted.¹

Summary of Public Comments on the NPRM

In the NPRM, we provided the public with a 60-day comment period that ended on January 21, 2014. We received 32 comments. The commenters

included advocacy groups, a national group representing disability examiners in the State agencies that make disability determinations for us, State agencies, groups representing medical practitioners, and individual members of the public. A number of the letters provided identical comments and recommendations.

We carefully considered all of the significant comments relevant to this rulemaking. We condensed and summarized the comments below. We presented the commenters’ concerns and suggestions and responded to all significant issues that were within the scope of these rules. We provide our reasons for adopting or not adopting the recommendations in our responses below.

General Comments

Comment: One commenter recommended that we review the medical criteria in the listings for evaluating hematological disorders every five years to ensure they reflect the latest advances in treatment and clinical practice. The commenter thought it especially important that we review ongoing clinical trials and published reports regarding advances in genetic testing and the clinical use of new blood derivatives and biologics.

Response: While we agree with the commenter that it is important to keep abreast of advances in treatment and clinical practice for hematological disorders, we have not made any changes to our proposed listings as a result of this comment. As mentioned above, we will monitor the final rules to ensure they still meet our program purposes. While doing this, we will consider whether we need to revise the rules to reflect advances in medical knowledge and clinical practice.²

Comment: Several commenters expressed concern that people with hematological disorders may be disabled but their impairments do not satisfy the specific medical criteria in the listings. The commenters said these people may have periods of relative functional ability punctuated by unpredictable and episodic complications that result in an inability to work. They believed such complications do not necessarily have to be prolonged or frequent to be disabling and to result in loss of

employment, failure in school, or other major disruptions in the person’s life.

Response: We agree that many of these final listings have specific medical criteria. Some people with hematological disorders may have complications that do not occur with the severity or frequency that these listings require. We believe the functional criteria in our final rules address commenters’ concerns by providing criteria that may permit a finding of disability at the listing step of the sequential evaluation process in people who suffer repeated complications of their impairments, but who may not be continually restricted in their functioning between complications. For example, our intent in new functional listing 7.18 for adults, and in our functional equivalence rules for children, is to evaluate impairments that are difficult to assess in strict medical terms. We can use the functional criteria in listing 7.18, as well as our functional equivalence rules in claims for childhood disability under the Supplemental Security Income (SSI) program, to evaluate claims filed by people who become ill and improve, but become ill again, either with the same complications of their hematological disorders or with different ones.

Comment: One commenter recommended we add a criterion in these final rules requiring compliance with prescribed therapy.

Response: We did not adopt the commenter’s recommendation because we believe our adjudicators can establish the relevance of a person’s noncompliance under our current rules and current operating instructions regarding failure to follow prescribed treatment.³ Under our policy, we must assess a person’s noncompliance on an individual basis because the person may have good cause for not following prescribed treatment. Good cause may include concern about the cost or adverse effects of treatment, lack of access to treatment, religious beliefs, or other situations. We also provide information to our adjudicators in final sections 7.00H and 107.00G on how to consider whether a person is receiving or following treatment.

Comment: Another commenter recommended that the final listings consider the cost of medication for

¹ See 50 FR 50068. We published some revisions to the hematological body system on April 24, 2002, and November 15, 2004. See 67 FR 20018 and 69 FR 67017 (corrected at 70 FR 15227). These revisions were not comprehensive; they addressed only specific listings.

² We have made it a priority to ensure that we keep the listings up to date and to report our progress. For example, see SSA’s *Annual Performance Plan for Fiscal Year 2015, Revised Performance Plan for Fiscal Year 2014, and Annual Performance Report for Fiscal Year 2013* available at <http://www.ssa.gov/agency/performance/2015/FY2015-APP-APR.pdf>.

³ See 20 CFR 404.1530 and 416.930; also see Social Security Ruling 82-59: Titles II and XVI: Failure to Follow Prescribed Treatment available at http://www.socialsecurity.gov/OP_Home/rulings/di/02/SSR82-59-di-02.html; and also see DI 23010 Failure to Follow Prescribed Treatment—Procedures, Program Operations Manual System (POMS), available at: <https://secure.ssa.gov/apps10/poms.nsf/lnx/0423010000>.

treating hematological disorders before denying children's disability claims.

Response: We did not adopt the comment because, as just indicated, we will consider on an individual case basis whether a person, including a child, can afford, or has access to, medically necessary treatments.

Comment: Some commenters objected to our use of hospitalization as a criterion in several final listings for determining listing-level severity of a person's hematological disorder. These listings require hospitalization at least three times within a 12-month period, with each hospitalization occurring at least 30 days apart. The commenters believed health insurers and hospitals are actively trying to reduce hospital admissions, which may prevent some disabled people from receiving benefits. One commenter thought that discrimination and a lack of uniformity of treatment protocols among communities and hospitals could also affect decisions regarding hospitalization. The commenters recommended we delete the hospitalization requirement or require fewer than three hospitalizations in a 12-month period. Some commenters also recommended we consider the frequency of outpatient visits as a measure of listing-level severity.

Response: We decided to retain the hospitalization criterion because our intent in these final listings is to reflect criteria that result in an inability to perform any gainful activity, which can be demonstrated by a need for a level of care beyond more conventional treatments for hematological disorders. We believe the hospitalization criterion is an advantage to people who apply for disability benefits because it provides another way for us to find them disabled at the listing step.

We want to assure the commenters that we are able to evaluate hematological disorders resulting in fewer than three hospitalizations in a consecutive 12-month period under the criteria in final listing 7.18 for adults, the functional equivalence rules for children, or at other steps in our sequential evaluation process. For example, the criteria in listing 7.18 evaluate the functional impact of the person's impairment in the broad areas of activities of daily living, social functioning, and concentration, persistence, or pace, including the functional impact of treatment such as repeated outpatient visits for complications. We are also able to evaluate hematological disorders that are "severe" but do not meet or equal any listing under the final steps of the sequential evaluation process.

Comment: One commenter expressed concern that people with hematological disorders may have complications and co-occurring conditions for years, but their impairments never result in hospitalization. This commenter was also concerned that our adjudicators may not know about many of the hematological disorders, their effects, and how to recognize them.

Response: As previously discussed, we believe the functional criteria in listing 7.18 and our childhood functional equivalence criteria under the SSI program will help us determine disability appropriately for people whose hematological disorders result in fewer than three hospitalizations in a 12-month period. These criteria also cover people who have never been hospitalized.

With regard to the commenter's concerns about adjudicators' knowledge of hematological disorders, the introductory text and listings provide common examples of hematological disorders and describe their complications. However, we do not think it is practical or necessary to list all hematological disorders and their complications. Instead, as we do with respect to other changes in our listings, we plan to provide instructions and training to our adjudicators. These instructions and the training will help our adjudicators recognize less common examples of hematological disorders and their associated complications and functional limitations.

Comment: One commenter believed the requirement that the hospitalization must last at least 48 hours seems to be "arbitrary" and not based on scientific or medical standards. The commenter thought it would be just as appropriate for us to require the hospitalization to last at least 24 hours, as listings in some other body systems require.

Response: We disagree with the commenter that we should require hospital stays of at least 24 hours. As we noted in the preamble of the NPRM, the 48-hour criterion more clearly defines our intent in prior listing 7.05B for an "extended hospitalization."⁴ This criterion is more detailed than in the prior listing, but it is not stricter. We believe the scientific and medical literature shows that many people hospitalized for serious complications of hematological disorders are included in the 48-hour criterion, and that this criterion can help identify an impairment of listing-level severity.

In sickle cell disease, for instance, a 2008 study found 63 percent of children hospitalized for pain crises had hospital

stays of at least 4 days, not counting time in the emergency department.⁵ Similarly, a 2004 study of children hospitalized for sickle cell disease complications other than strokes reported a median hospital stay of 3 days⁶; children with strokes had a median hospital stay of 6 days. A 2010 study of adults and children with sickle cell complications reported an average initial hospital stay of 5.6 days.⁷ Children in the 2008 study with long hospital stays tended to have high pain scores, pain in multiple body sites, co-occurring complications, and a need for extensive treatment.

In hemophilia, a study published in 2011 of Texas patients with bleeding episodes reported a median hospital stay of 4 days.⁸ A 2005 study of patients with potentially life-threatening bleeds in the iliopsoas muscle reported a median hospital stay of 4.8 days.⁹ Hospital stays may be longer for iliopsoas bleeds in hemophiliacs with "inhibitors" (replacement factor alloantibodies).¹⁰ Generally, hemophiliacs with inhibitors may require more extensive treatment than those without inhibitors because their bleeding episodes often are resistant to standard treatments.¹¹

The study findings described above are consistent with our adjudicative experience that many claimants with listing-level hematological disorders satisfy the 48-hour criterion because their complications are difficult to treat and recoveries are prolonged.¹² On the other hand, we believe requiring the hospitalization to last at least 24 hours would not be an accurate predictor of impairment severity because this criterion would include people who

⁵ Rogovik, A., *et al.*, Admission and length of stay due to painful vasoocclusive crisis in children, *The American Journal of Emergency Medicine*, Sep;27(7), 797–801 (2008).

⁶ Fullerton, H., *et al.*, Declining stroke rates in California children with sickle cell disease, *Blood*, Jul;104(2), 336–339 (2004).

⁷ Brousseau, D., *et al.*, Acute care utilization and rehospitalizations for sickle cell disease, *Journal of the American Medical Association*, Apr;303(13), 1288–1294 (2010).

⁸ Mirchandani, G.G., *et al.*, Surveillance of bleeding disorders, Texas, 2007, *American Journal of Preventive Medicine*, Dec;41(6 Suppl 4), S354–359 (2011).

⁹ Balkan, C., *et al.*, Iliopsoas haemorrhage in patients with haemophilia: Results of one centre, *Haemophilia*, Sep;11(5), 463–467 (2005).

¹⁰ Ashrani, A.A., *et al.*, Iliopsoas haemorrhage in patients with bleeding disorders—experience from one centre, *Haemophilia*, Nov;9(6), 721–726 (2003).

¹¹ Soucie, J.M., *et al.*, Home-based factor infusion therapy and hospitalization for bleeding complications among males with haemophilia, *Mar;7(2)*, 198–206 (2001).

¹² The study findings only expand on, and confirm, the data in the studies we cited in the NPRM. They do not change either the methodology in the listing or any substantive criteria in it.

recover relatively quickly and satisfactorily with standard treatments. These hospitalizations include people hospitalized only overnight, for example, to receive extra fluids after treatment in the emergency department, and those kept for observation after surgery. In this regard, a 24-hour criterion would not reflect our intent that the listing be used to evaluate impairments at the listing level, which require treatment beyond the usual course of treatment for the hematological disorder.

Comment: One commenter questioned our use of the term “disorders of hemostasis” in the introductory text and the listings. The commenter noted that the medical community usually refers to the grouping of clotting and bleeding disorders as “disorders of thrombosis and hemostasis.”

Response: We adopted the comment and modified the listings accordingly.

Comment: Some commenters suggested minor editorial changes in the introductory text, such as a comment asking us to indicate that the examples of complications of hematological disorders in section 7.00C, section 7.00D, and other final sections are not all-inclusive.

Response: We made these minor editorial changes for clarity and consistency; none were substantive.

Sections 7.00B and 107.00B—What evidence do we need to document that you have a hematological disorder?

Comment: Some commenters expressed concern over the requirement in proposed sections 7.00B and 107.00B that laboratory reports of definitive tests establishing hematological disorders have a physician’s signature. These commenters thought this requirement too difficult or burdensome for some claimants because it may require them to obtain additional medical evidence. These commenters said it is not the usual practice for the overseeing physician in a laboratory to sign laboratory reports of definitive tests. They recommended we accept reports signed by treating physicians or other physicians if these reports state that the definitive hematological evidence is present in the medical records. They also believed we should accept a physician’s statement that a person has a hematological disorder, even if the definitive hematological evidence is not present in the medical records.

Response: We did not adopt the comments. Under our policy, evidence establishing a medically determinable impairment (MDI) must be appropriately developed. To develop this evidence appropriately, it must

come from acceptable medical sources, that is, medical or osteopathic doctors.¹³ A doctor’s signature on a definitive laboratory test establishing that the person has a hematological disorder confirms the evidence came from an acceptable medical source, and we do not need to develop the evidence further to establish an MDI. In situations in which a doctor did not sign the definitive laboratory test, we will continue to develop the evidence. Final sections 7.00B and 107.00B provide examples of additional evidence we may obtain from doctors to establish the MDI, and we believe these examples are comparable to what the commenters recommended. Consequently, final sections 7.00B and 107.00B clarify how we develop evidence establishing the MDI; they do not add new requirements.

Sections 7.00C and 107.00C—What are hemolytic anemias, and how do we evaluate them under 7.05 and 107.05?

Comment: One commenter pointed out that hemolytic anemias are sometimes acquired conditions.

Response: We adopted this comment and revised final sections 7.00C1 and 107.00C1 to provide examples of acquired hemolytic anemias. We made similar changes in final sections 7.00D1, 107.00D1, 7.00E1, and 107.00E1. We also provided examples of acquired disorders of thrombosis and hemostasis, as well as disorders of bone marrow failure.

Comment: A commenter recommended that we add hereditary spherocytosis to the list of common examples of hemolytic anemias in adults. The commenter also suggested that we add paroxysmal nocturnal hemoglobinuria to the list of examples.

Response: We adopted this recommendation and added hereditary spherocytosis to the list in 7.00C1. We also added hereditary spherocytosis to the list of common examples of hemolytic anemias in children in 107.00C1 to make the child listings consistent with the adult listings.

We did not adopt the commenter’s recommendation that we add paroxysmal nocturnal hemoglobinuria to the list of examples. Although we evaluate paroxysmal nocturnal hemoglobinuria under the hematological disorders listings, it is a very rare disorder. We provide only examples of common hemolytic anemias in the listings because we do not believe it is practical or necessary to name all of the hematological disorders we evaluate under this body system. We plan to provide information to our

adjudicators about less common examples of hematological disorders, such as paroxysmal nocturnal hemoglobinuria, through training and operating instructions.

Comment: We received many comments expressing concern over our exclusion in proposed sections 7.00C4 and 107.00C4 of prophylactic red blood cell (RBC) transfusions to prevent stroke in people with sickle cell disease. Some of these commenters recommended that we delete the statement in proposed section 7.00C4 that we do not consider prophylactic RBC transfusions for sickle cell disease to be of equal medical significance to transfusion-dependent thalassemia.¹⁴ They said people with sickle cell disease who require prophylactic RBC transfusions are usually chronically ill, and they cited articles in the current medical literature to support their views. Another commenter believed final sections 7.00C4 and 107.00C4 needed more information to help adjudicators determine whether the need for RBC transfusions will be life-long.

The commenters also believe people with sickle cell disease who receive prophylactic RBC transfusion to prevent stroke may be more severely impaired than people with transfusion-dependent beta thalassemia major because they have a far greater burden of cerebrovascular disease and intellectual and physical impairment. Additionally, a comment from a national advocacy group for physicians in pediatric hematology and oncology said its membership now considers sickle cell disease with stroke to be a transfusion-dependent disorder like thalassemia because of the risk of recurrent strokes if prophylactic RBC transfusion stops.

Response: We do not agree that treatment with prophylactic RBC transfusions alone should reflect a listing-level impairment in sickle cell disease and have not adopted the commenters’ recommendations. Under the Act, we cannot find that a person is disabled based on the risk of a complication occurring in the future, as, for example, when transfusion therapy is effective and the person has not experienced a stroke.

However, we agree that people with sickle cell disease are chronically sick. We added language to final sections 7.00C4 and 107.00C4 that directs evaluation under listings 11.00, 111.00, 12.00, and 112.00 if a claimant has had a stroke. We also added language in final sections 7.00C4 and 107.00C4 explaining that we will consider functional limitations associated with

¹³ See 20 CFR 404.1513(a) and 416.913(a).

¹⁴ 78 FR at 69333.

chronic RBC transfusions under final listing 7.18 for adults, the functional equivalence rules for children, as well as the listings for any affected body systems. The additional language also addresses complications resulting from chronic RBC transfusion, such as iron overload.

We also deleted the term “transfusion-dependent” in the final sections 7.00C4, 107.00C4, 7.00E3, and 107.00E3 because comments demonstrated to us that this term may confuse adjudicators. We made a corresponding change in final listings 7.05D, 107.05D, 7.10B, and 107.10B. Instead, we use the phrase, “requiring RBC transfusions at least once every 6 weeks to maintain life.” We believe this phrase is more descriptive of our intent in these final rules, which is that listing-level severity for hematological disorders requires treatment with RBC transfusions that are life-saving in nature and life-long in need. Moreover, we are confident our adjudicators will understand the requirement that the RBC transfusions must be “life-long,” as reflected in the ultimately fatal nature of beta thalassemia major and myelodysplastic syndrome if this treatment is withdrawn.

Sections 7.00D and 107.00D—What are disorders of thrombosis and hemostasis, and how do we evaluate them under 7.08 and 107.08?

Comment: A commenter noted that the future development of new treatments for hemophilia may make the term “factor infusions” less relevant.

Response: We adopted the comment and use the term “clotting-factor proteins” in final sections 7.00D2 and 107.00D2, instead of the term “factor infusions.”

Comment: A commenter stated that the language in proposed sections 7.00D2 and 107.00D2 was vague and did not make it clear that these sections included any surgery.

Response: We revised final sections 7.00D2 and 107.00D2 to state explicitly that we consider all surgeries in people with disorders of thrombosis or hemostasis to be complications of their disorders if they needed treatment with clotting-factor proteins or anticoagulant medications to control bleeding or coagulation in connection with the surgery.

Sections 7.00I and 107.00H—How do we evaluate episodic events in hematological disorders?

Comment: Some commenters thought proposed sections 7.00I and 107.00I could imply that the consecutive 12-month period required for episodic

events could not include the months before a person files a disability claim, or the months before the person’s alleged onset date of disability.

Response: In response to these comments, we added language to clarify the guidance in final sections 7.00I and 107.00I.

Listings 7.05 and 107.05—Hemolytic Anemias, Including Sickle Cell Disease, Thalassemia, and Their Variants

Comment: Several commenters expressed concern about the criterion in proposed listings 7.05A and 107.05A requiring at least six pain crises treated with parenteral narcotic medications within a 12-month period and occurring at least 30 days apart. These commenters believed this criterion is too restrictive, particularly for evaluating sickle cell disease. They believed that recent scientific and medical literature points to three pain crises requiring parenteral narcotic medication within a 12-month period as a more appropriate standard.

Some commenters also noted that pain crises treated with only oral narcotic medications may be severe enough to disrupt a person’s life for days or weeks. These commenters believed such pain crises greatly impair a person’s mobility, self-care, and mental capacity, and they noted that there can be long-term, cumulative tissue and organ damage associated with the crises. A national advocacy group for persons with hematological disorders recommended we consider the daily use of oral opioids as a criterion for listing-level severity. The group provided a suggested revision to final listing 7.05A that considered a person disabled if he or she required daily oral opioids for chronic pain for a period of at least 30 consecutive days, at least three times within a 12-month period.

Response: We did not adopt these comments because we believe final listings 7.05A and 107.05A provide objective criteria that are more descriptive of our intent and more specific to listing-level determinations than the prior listings. In addition, as we noted previously, final listing 7.18 provides criteria to evaluate claims from individuals whose impairments do not satisfy the medical criteria in final listing 7.05A, but whose impairments result in functional limitations that meet the criteria of listing 7.18. These effects may include chronic pain and other complications, as well as a frequent need for oral narcotic medication or other treatments that may cause negative side effects. Some people with sickle cell disease or other hemolytic anemia may have impairments that are

less than listing-level severity, but may still be disabling. We can evaluate these impairments through the steps of our sequential evaluation process after the listing step.

Comment: One commenter noted that a person hospitalized for pain crises may receive treatments other than parenteral narcotic medication, such as local or regional anesthetic blocks. The commenter believed pain crises requiring such treatments also result in functional impairments and are indicative of pain severity, but were not reflected in proposed listings 7.05A and 107.05A.

Response: While it is true final listings 7.05A and 107.05A do not specify these other treatments, we did not adopt this comment because we are able to evaluate hospitalizations for pain crises treated with other treatments under final listings 7.05B and 107.05B, or we can evaluate the functional impairments described by the commenter under final listing 7.18, or the functional equivalence rules for childhood disability claims under the SSI program.

Comment: One commenter agreed with the requirement in listings 7.05B and 107.05B that a hospitalization should last at least 48 hours, but recommended that this criterion not include hours spent in the hospital emergency department immediately before the hospitalization. The commenter said hospitals may not always document patients’ arrival times in their emergency departments and times of discharge to inpatient units.

Response: We did not adopt the commenter’s recommendation because our adjudicative experience shows that hospitals document these times in the great majority of cases.

Comment: A commenter suggested we count the hours a person receives treatment in a comprehensive sickle cell disease center under our requirement in final listings 7.05B and 107.05B that hospitalizations for complications of hemolytic anemias last at least 48 hours. We received a similar comment regarding comprehensive hemophilia treatment centers.

Response: We adopted these comments. We explain in final sections 7.00C2 and 107.00C2 that we will count the hours the person receives treatment in a comprehensive sickle cell disease center if the treatment is comparable to the treatment provided in a hospital emergency department. We also revised final listings 7.08 and 107.08 and final sections 7.00D2 and 107.00D2 in response to the comment regarding comprehensive hemophilia treatment centers.

Comment: One commenter believed the requirement in proposed listings 7.05B and 107.05B for three hospitalizations within a 12-month period is too restrictive because it applies only to a subset of people with sickle cell disease who the commenter described as “high-risk” patients. The commenter believed we should consider a person with sickle cell disease to be disabled if he or she has any of the complications described in final sections 7.00C2 and 107.00C2 because this person needs continual follow-up and monitoring regardless of hospitalization.

Response: While we appreciate the commenter’s concerns—and we agree that people with sickle cell disease have serious impairments if they have any of the complications described in final sections 7.00C2 and 107.00C2—we did not adopt the comment. We can evaluate these claimants’ impairments under any appropriate listing in the affected body system, or at the steps of our sequential evaluation process after the listing step, if they do not meet or medically equal the criteria in listings 7.05B and 107.05B.

Comment: We received a comment recommending we add guidance to the listings that explains to adjudicators they can use hematocrit readings under final listings 7.05C and 107.05C if a person’s case record does not include hemoglobin measurements. The commenter was concerned adjudicators might misinterpret the listings to mean they cannot use hematocrit readings under any circumstances.

Response: We did not adopt this recommendation. These final listings require hemoglobin measurements at 7.0 grams per deciliter (g/dL) or less, occurring at least three times within a 12-month period with at least 30 days between measurements. In the great majority of cases, our adjudicative experience shows a person’s case record provides both hemoglobin measurements and hematocrit readings. Moreover, we are confident that our adjudicators understand they can use comparable hematocrit levels to medically equal the listings if hemoglobin measurements are not available. The final listings do not provide substantive instructions to our adjudicators for determining such equivalence because we can better provide this information through operating instructions and training.

Comment: Two commenters questioned whether we should use hemoglobin measurements at all. One commenter said the science and the medical communities have not established a critical threshold for

hemoglobin for determining disability. The other commenter said disability depends on factors besides hemoglobin level, such as the duration of anemia, the bone marrow’s response, and associated cardiovascular or other organ dysfunction. For children, this commenter said we should also consider amount of fatigue, inability to concentrate, problems with executive function, and memory deficiencies.

Response: We did not adopt these comments because we believe this criterion is reasonable for quickly identifying people whose hemolytic anemias are clearly disabling, and whose claims should be allowed at the listing step. Hemoglobin at 7.0 g/dL or less can result in an abnormal heartbeat, shortness of breath with mild exertion, significant fatigue, and other very serious complications. Given these complications, we believe the criteria in the final listings reflect a persistence of very low hemoglobin that can prevent an adult from working, or prevent a child from functioning independently, appropriately, and effectively in an age-appropriate manner.

Comment: A commenter noted that people with sickle cell disease and a history of frequent pain crises or acute chest syndrome may be receiving prophylactic RBC transfusions to alleviate these complications and are not likely to have hemoglobin measurements of 7.0 g/dL. The commenter recommended that listings 7.05C and 107.05C allow for a finding of disability for people who receive prophylactic RBC transfusions for these complications.

Response: We did not adopt the comment because the intent of the hemoglobin finding in final listings 7.05C and 107.05C is to provide a faster way for us to determine listing-level disability without needing to consider a person’s specific complications.

Comment: The same commenter also thought that adjudicators will have difficulty identifying hemoglobin measurements of 7.0 g/dL among potentially hundreds of measurements in a person’s case record.

Response: We did not adopt this comment. We agree that a person’s case record may provide many hemoglobin measurements; however, our adjudicators are accustomed to evaluating such evidence.

Listing 7.18—Repeated Complications of Hematological Disorders

Comment: One commenter suggested that we add “chronic skin ulcers” to the examples of complications in final listing 7.18.

Response: We did not adopt this comment. Both the proposed rules and these final rules include skin ulcers as a possible complication that we will evaluate under listing 7.18. However, skin ulcers and other complications we evaluate under the listing do not have to be chronic. We explain in final section 7.00G2 that a person’s complications do not have to be the same each time, but can vary. A person could have skin ulcers once and may satisfy this criterion in the listing if he or she also has other complications during the period we are considering in connection with the application.

Comment: A commenter suggested we include chronic, non-vascular necrosis-related low back pain in final listing 7.18 as a complication of a hematological disorder. The commenter also suggested that listing 7.18 take into consideration pain resulting from prolonged periods of standing or physical activity in people who have chronic pain from a hematological disorder such as sickle cell disease.

Response: We did not believe it was necessary to adopt the commenter’s suggestions. The pain resulting from repeated complications of hematological disorders that listing 7.18 requires can include the chronic pain the commenter describes.

Comment: One commenter believed that it is important for adjudicators to give appropriate weight to evaluations by nurses, social workers, and physical therapists when determining a person’s functional limitations under final listing 7.18.

Response: We agree that such sources can provide important information to show the severity of a person’s impairment and how it affects his or her ability to work, and we currently provide guidance to our adjudicators in our regulations for considering this evidence and who may provide it.¹⁵

Listing 107.08—Disorders of Hemostasis, Including Hemophilia and Thrombocytopenia

Comment: A commenter believed proposed listing 107.08 did not recognize the developmental and functional impact that disability has on children and should reflect a need for frequent medical intervention, not only hospitalizations. The commenter stated that repeated hospitalizations and frequent outpatient medical treatment

¹⁵ See 20 CFR 404.1513(d), 20 CFR 416.913(d), and Social Security Ruling 06–03p: Titles II and XVI: Considering Opinions and Other Evidence from Sources Who Are Not “Acceptable Medical Sources” in Disability Claims, 71 FR 45593 (2006) (also available at: http://www.ssa.gov/OP_Home/rulings/di/01/SSR2006-03-di-01.html).

affect children much more profoundly than adults.

Response: We did not adopt the commenter's recommendation because we can evaluate the functional and developmental impact of a child's frequent medical treatment under our functional equivalence rules. Under these rules, we evaluate how independently, appropriately, and effectively the child functions compared to children of the same age who do not have a hematological disorder. This evaluation includes assessing what activities the child cannot do, has difficulty doing, or is restricted from doing because of the interactive and cumulative effects of his or her disorder and medical care.

Listing 107.10—Disorders of Bone Marrow Failure, Including Myelodysplastic Syndromes, Aplastic Anemia, Granulocytopenia, and Myelofibrosis

Comment: A commenter stated that the requirement in 107.10A for three hospitalizations within a 12-month period may be too restrictive for children because "impairment can be severe in a child" following a single hospitalization.

Response: We did not modify the proposed listing as a result of this comment. We believe the hospitalization criterion for disorders of bone marrow failure is an advantage to children and adults who apply for disability benefits because it provides another way we may find them disabled at the listing step. Additionally, the child functional equivalence rules help us evaluate SSI claims filed by children whose hematological disorders result in fewer than three hospitalizations in a 12-month period.

What is our authority to make rules and set procedures for determining whether a person is disabled under the statutory definition?

Under the Act, we have authority to make rules and regulations and to establish necessary and appropriate procedures to carry out such provisions.¹⁶

How long will these final rules be in effect?

These final rules will be in effect for 5 years after their effective date, unless we extend them. We will continue to monitor these rules to ensure that they continue to meet program purposes, and may revise them before the end of the 5-year period if warranted.

Regulatory Procedures

Executive Order 12866, as Supplemented by Executive Order 13563

We consulted with the Office of Management and Budget (OMB) and determined that these final rules meet the requirements for a significant regulatory action under Executive Order 12866, as supplemented by Executive Order 13563 and was reviewed by OMB.

Regulatory Flexibility Act

We certify that these final rules will not have a significant economic impact on a substantial number of small entities because they affect only individuals. Therefore, the Regulatory Flexibility Act, as amended, does not require us to prepare a regulatory flexibility analysis.

Paperwork Reduction Act

These final rules do not impose new or affect any existing reporting or recordkeeping requirements and are not subject to OMB clearance.

(Catalog of Federal Domestic Assistance Program Nos. 96.001, Social Security—Disability Insurance; 96.002, Social Security—Retirement Insurance; 96.004, Social Security—Survivors Insurance; and 96.006, Supplemental Security Income).

List of Subjects in 20 CFR Part 404

Administrative practice and procedure, Blind, Disability benefits, Old-age, Survivors and Disability Insurance, Reporting and recordkeeping requirements, Social Security.

Dated: April 10, 2015.

Carolyn W. Colvin,

Acting Commissioner of Social Security.

For the reasons set out in the preamble, we are amending 20 CFR part 404, subpart P as set forth below:

PART 404—FEDERAL OLD-AGE, SURVIVORS AND DISABILITY INSURANCE (1950—)

Subpart P—[Amended]

■ 1. The authority citation for subpart P of part 404 continues to read as follows:

Authority: Secs. 202, 205(a)–(b) and (d)–(h), 216(i), 221(a), (i), and (j), 222(c), 223, 225, and 702(a)(5) of the Social Security Act (42 U.S.C. 402, 405(a)–(b) and (d)–(h), 416(i), 421(a), (i), and (j), 422(c), 423, 425, and 902(a)(5)); sec. 211(b), Pub. L. 104–193, 110 Stat. 2105, 2189; sec. 202, Pub. L. 108–203, 118 Stat. 509 (42 U.S.C. 902 note).

■ 2. Amend appendix 1 to subpart P of part 404 by revising:

- a. Item 8 of the introductory text before part A;
- b. Section 7.00 of part A;
- c. Section 13.00K2c(ii) of part A;

■ d. Second sentence of section 13.00K3 of part A; and

■ e. Section 107.00 of part B.

The revisions read as follows:

Appendix 1 to Subpart P of Part 404—Listing of Impairments

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8. Hematological Disorders (7.00 and 107.00): May 18, 2020.

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Part A

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7.00 HEMATOLOGICAL DISORDERS

A. What hematological disorders do we evaluate under these listings?

1. We evaluate non-malignant (non-cancerous) hematological disorders, such as hemolytic anemias (7.05), disorders of thrombosis and hemostasis (7.08), and disorders of bone marrow failure (7.10). These disorders disrupt the normal development and function of white blood cells, red blood cells, platelets, and clotting-factor proteins (factors).

2. We evaluate malignant (cancerous) hematological disorders, such as lymphoma, leukemia, and multiple myeloma, under the appropriate listings in 13.00, except for lymphoma associated with human immunodeficiency virus (HIV) infection, which we evaluate under 14.08E.

B. What evidence do we need to document that you have a hematological disorder?

We need the following evidence to document that you have a hematological disorder:

1. A laboratory report of a definitive test that establishes a hematological disorder, signed by a physician; or

2. A laboratory report of a definitive test that establishes a hematological disorder that is not signed by a physician and a report from a physician that states you have the disorder; or

3. When we do not have a laboratory report of a definitive test, a persuasive report from a physician that a diagnosis of your hematological disorder was confirmed by appropriate laboratory analysis or other diagnostic method(s). To be persuasive, this report must state that you had the appropriate definitive laboratory test or tests for diagnosing your disorder and provide the results, or explain how your diagnosis was established by other diagnostic method(s) consistent with the prevailing state of medical knowledge and clinical practice.

4. We will make every reasonable effort to obtain the results of appropriate laboratory testing you have had. We will not purchase complex, costly, or invasive tests, such as tests of clotting-factor proteins, and bone marrow aspirations.

C. What are hemolytic anemias, and how do we evaluate them under 7.05?

1. *Hemolytic anemias, both congenital and acquired*, are disorders that result in premature destruction of red blood cells (RBCs). Hemolytic disorders include abnormalities of hemoglobin structure

¹⁶ See sections 205(a), 702(a)(5), and 1631(d)(1).

(hemoglobinopathies), abnormal RBC enzyme content and function, and RBC membrane (envelope) defects that are congenital or acquired. The diagnosis of hemolytic anemia is based on hemoglobin electrophoresis or analysis of the contents of the RBC (enzymes) and membrane. Examples of congenital hemolytic anemias include sickle cell disease, thalassemia and their variants, and hereditary spherocytosis. Acquired hemolytic anemias may result from autoimmune disease (for example, systemic lupus erythematosus) or mechanical devices (for example, heart valves, intravascular patches).

2. The hospitalizations in 7.05B do not all have to be for the same complication of the hemolytic anemia. They may be for three different complications of the disorder. Examples of complications of hemolytic anemia that may result in hospitalization include osteomyelitis, painful (vaso-occlusive) crisis, pulmonary infections or infarctions, acute chest syndrome, pulmonary hypertension, chronic heart failure, gallbladder disease, hepatic (liver) failure, renal (kidney) failure, nephrotic syndrome, aplastic crisis, and stroke. We will count the hours you receive emergency treatment in a comprehensive sickle cell disease center immediately before the hospitalization if this treatment is comparable to the treatment provided in a hospital emergency department.

3. For 7.05C, we do not require hemoglobin to be measured during a period in which you are free of pain or other symptoms of your disorder. We will accept hemoglobin measurements made while you are experiencing complications of your hemolytic anemia.

4. 7.05D refers to the most serious type of beta thalassemia major in which the bone marrow cannot produce sufficient numbers of normal RBCs to maintain life. The only available treatments for beta thalassemia major are life-long RBC transfusions (sometimes called hypertransfusion) or bone marrow transplantation. For purposes of 7.05D, we do not consider prophylactic RBC transfusions to prevent strokes or other complications in sickle cell disease and its variants to be of equal significance to life-saving RBC transfusions for beta thalassemia major. However, we will consider the functional limitations associated with prophylactic RBC transfusions and any associated side effects (for example, iron overload) under 7.18 and any affected body system(s). We will also evaluate strokes and resulting complications under 11.00 and 12.00.

D. What are disorders of thrombosis and hemostasis, and how do we evaluate them under 7.08?

1. *Disorders of thrombosis and hemostasis* include both clotting and bleeding disorders, and may be congenital or acquired. These disorders are characterized by abnormalities in blood clotting that result in hypercoagulation (excessive blood clotting) or hypocoagulation (inadequate blood clotting). The diagnosis of a thrombosis or hemostasis disorder is based on evaluation of plasma clotting-factor proteins (factors) and platelets. Protein C or protein S deficiency

and Factor V Leiden are examples of hypercoagulation disorders. Hemophilia, von Willebrand disease, and thrombocytopenia are examples of hypocoagulation disorders. Acquired excessive blood clotting may result from blood protein defects and acquired inadequate blood clotting (for example, acquired hemophilia A) may be associated with inhibitor autoantibodies.

2. The hospitalizations in 7.08 do not all have to be for the same complication of a disorder of thrombosis and hemostasis. They may be for three different complications of the disorder. Examples of complications that may result in hospitalization include anemias, thromboses, embolisms, and uncontrolled bleeding requiring multiple factor concentrate infusions or platelet transfusions. We will also consider any surgery that you have, even if it is not related to your hematological disorder, to be a complication of your disorder of thrombosis and hemostasis if you require treatment with clotting-factor proteins (for example, factor VIII or factor IX) or anticoagulant medication to control bleeding or coagulation in connection with your surgery. We will count the hours you receive emergency treatment in a comprehensive hemophilia treatment center immediately before the hospitalization if this treatment is comparable to the treatment provided in a hospital emergency department.

E. What are disorders of bone marrow failure, and how do we evaluate them under 7.10?

1. *Disorders of bone marrow failure* may be congenital or acquired, characterized by bone marrow that does not make enough healthy RBCs, platelets, or granulocytes (specialized types of white blood cells); there may also be a combined failure of these bone marrow-produced cells. The diagnosis is based on peripheral blood smears and bone marrow aspiration or bone marrow biopsy, but not peripheral blood smears alone. Examples of these disorders are myelodysplastic syndromes, aplastic anemia, granulocytopenia, and myelofibrosis. Acquired disorders of bone marrow failure may result from viral infections, chemical exposure, or immunologic disorders.

2. The hospitalizations in 7.10A do not all have to be for the same complication of bone marrow failure. They may be for three different complications of the disorder. Examples of complications that may result in hospitalization include uncontrolled bleeding, anemia, and systemic bacterial, viral, or fungal infections.

3. For 7.10B, the requirement of life-long RBC transfusions to maintain life in myelodysplastic syndromes or aplastic anemias has the same meaning as it does for beta thalassemia major. (See 7.00C4.)

F. How do we evaluate bone marrow or stem cell transplantation under 7.17?

We will consider you to be disabled for 12 months from the date of bone marrow or stem cell transplantation, or we may consider you to be disabled for a longer period if you are experiencing any serious post-transplantation complications, such as graft-versus-host (GVH) disease, frequent infections after immunosuppressive therapy, or significant

deterioration of organ systems. We do not restrict our determination of the onset of disability to the date of the transplantation in 7.17. We may establish an earlier onset date of disability due to your transplantation if evidence in your case record supports such a finding.

G. How do we use the functional criteria in 7.18?

1. When we use the functional criteria in 7.18, we consider all relevant information in your case record to determine the impact of your hematological disorder on your ability to function independently, appropriately, effectively, and on a sustained basis in a work setting. Factors we will consider when we evaluate your functioning under 7.18 include, but are not limited to: Your symptoms, the frequency and duration of complications of your hematological disorder, periods of exacerbation and remission, and the functional impact of your treatment, including the side effects of your medication.

2. *Repeated complications* means that the complications occur on an average of three times a year, or once every 4 months, each lasting 2 weeks or more; or the complications do not last for 2 weeks but occur substantially more frequently than three times in a year or once every 4 months; or they occur less frequently than an average of three times a year or once every 4 months but last substantially longer than 2 weeks. Your impairment will satisfy this criterion regardless of whether you have the same kind of complication repeatedly, all different complications, or any other combination of complications; for example, two of the same kind of complication and a different one. You must have the required number of complications with the frequency and duration required in this section. Additionally, the complications must occur within the period we are considering in connection with your application or continuing disability review.

3. To satisfy the functional criteria in 7.18, your hematological disorder must result in a "marked" level of limitation in one of three general areas of functioning: Activities of daily living, social functioning, or difficulties in completing tasks due to deficiencies in concentration, persistence, or pace. Functional limitations may result from the impact of the disease process itself on your mental functioning, physical functioning, or both your mental and physical functioning. This limitation could result from persistent or intermittent symptoms, such as pain, severe fatigue, or malaise, resulting in a limitation of your ability to do a task, to concentrate, to persevere at a task, or to perform the task at an acceptable rate of speed. (*Severe fatigue* means a frequent sense of exhaustion that results in significant reduced physical activity or mental function. *Malaise* means frequent feelings of illness, bodily discomfort, or lack of well-being that result in significantly reduced physical activity or mental function.) You may also have limitations because of your treatment and its side effects.

4. *Marked* limitation means that the symptoms and signs of your hematological

disorder interfere *seriously* with your ability to function. Although we do not require the use of such a scale, “marked” would be the fourth point on a five-point scale consisting of no limitation, mild limitation, moderate limitation, marked limitation, and extreme limitation. We do not define “marked” by a specific number of different activities of daily living or different behaviors in which your social functioning is impaired, or a specific number of tasks that you are able to complete, but by the nature and overall degree of interference with your functioning. You may have a marked limitation when several activities or functions are impaired, or even when only one is impaired. Additionally, you need not be totally precluded from performing an activity to have a marked limitation, as long as the degree of limitation interferes seriously with your ability to function independently, appropriately, and effectively. The term “marked” does not imply that you must be confined to bed, hospitalized, or in a nursing home.

5. *Activities of daily living* include, but are not limited to, such activities as doing household chores, grooming and hygiene, using a post office, taking public transportation, or paying bills. We will find that you have a “marked” limitation in activities of daily living if you have a serious limitation in your ability to maintain a household or take public transportation because of symptoms such as pain, severe fatigue, anxiety, or difficulty concentrating, caused by your hematological disorder (including complications of the disorder) or its treatment, even if you are able to perform some self-care activities.

6. *Social functioning* includes the capacity to interact with others independently, appropriately, effectively, and on a sustained basis. It includes the ability to communicate effectively with others. We will find that you have a “marked” limitation in maintaining social functioning if you have a serious limitation in social interaction on a sustained basis because of symptoms such as pain, severe fatigue, anxiety, or difficulty concentrating, or a pattern of exacerbation and remission, caused by your hematological disorder (including complications of the disorder) or its treatment, even if you are able to communicate with close friends or relatives.

7. *Completing tasks in a timely manner* involves the ability to sustain concentration, persistence, or pace to permit timely completion of tasks commonly found in work settings. We will find that you have a “marked” limitation in completing tasks if you have a serious limitation in your ability to sustain concentration or pace adequate to complete work-related tasks because of symptoms, such as pain, severe fatigue, anxiety, or difficulty concentrating caused by your hematological disorder (including complications of the disorder) or its treatment, even if you are able to do some routine activities of daily living.

H. How do we consider your symptoms, including your pain, severe fatigue, and malaise?

Your symptoms, including pain, severe fatigue, and malaise, may be important

factors in our determination whether your hematological disorder(s) meets or medically equals a listing, or in our determination whether you are otherwise able to work. We cannot consider your symptoms unless you have medical signs or laboratory findings showing the existence of a medically determinable impairment(s) that could reasonably be expected to produce the symptoms. If you have such an impairment(s), we will evaluate the intensity, persistence, and functional effects of your symptoms using the rules throughout 7.00 and in our other regulations. (See sections 404.1528, 404.1529, 416.928, and 416.929 of this chapter.) Additionally, when we assess the credibility of your complaints about your symptoms and their functional effects, we will not draw any inferences from the fact that you do not receive treatment or that you are not following treatment without considering all of the relevant evidence in your case record, including any explanations you provide that may explain why you are not receiving or following treatment.

I. How do we evaluate episodic events in hematological disorders?

Some of the listings in this body system require a specific number of events within a consecutive 12-month period. (See 7.05, 7.08, and 7.10A.) When we use such criteria, a consecutive 12-month period means a period of 12 consecutive months, all or part of which must occur within the period we are considering in connection with your application or continuing disability review. These events must occur at least 30 days apart to ensure that we are evaluating separate events.

J. How do we evaluate hematological disorders that do not meet one of these listings?

1. These listings are only common examples of hematological disorders that we consider severe enough to prevent a person from doing any gainful activity. If your disorder does not meet the criteria of any of these listings, we must consider whether you have a disorder that satisfies the criteria of a listing in another body system. For example, we will evaluate hemophilic joint deformity or bone or joint pain from myelofibrosis under 1.00; polycythemia vera under 3.00, 4.00, or 11.00; chronic iron overload resulting from repeated RBC transfusion (transfusion hemosiderosis) under 3.00, 4.00, or 5.00; and the effects of intracranial bleeding or stroke under 11.00 or 12.00.

2. If you have a severe medically determinable impairment(s) that does not meet a listing, we will determine whether your impairment(s) medically equals a listing. (See sections 404.1526 and 416.926 of this chapter.) Hematological disorders may be associated with disorders in other body systems, and we consider the combined effects of multiple impairments when we determine whether they medically equal a listing. If your impairment(s) does not medically equal a listing, you may or may not have the residual functional capacity to engage in substantial gainful activity. We proceed to the fourth, and, if necessary, the

fifth steps of the sequential evaluation process in sections 404.1520 and 416.920. We use the rules in sections 404.1594, 416.994, and 416.994a of this chapter, as appropriate, when we decide whether you continue to be disabled.

7.01 Category of Impairments, Hematological Disorders

7.05 *Hemolytic anemias*, including sickle cell disease, thalassemia, and their variants (see 7.00C), with:

A. Documented painful (vaso-occlusive) crises requiring parenteral (intravenous or intramuscular) narcotic medication, occurring at least six times within a 12-month period with at least 30 days between crises.

OR

B. Complications of hemolytic anemia requiring at least three hospitalizations within a 12-month period and occurring at least 30 days apart. Each hospitalization must last at least 48 hours, which can include hours in a hospital emergency department or comprehensive sickle cell disease center immediately before the hospitalization (see 7.00C2).

OR

C. Hemoglobin measurements of 7.0 grams per deciliter (g/dL) or less, occurring at least three times within a 12-month period with at least 30 days between measurements.

OR

D. Beta thalassemia major requiring life-long RBC transfusions at least once every 6 weeks to maintain life (see 7.00C4).

7.08 *Disorders of thrombosis and hemostasis*, including hemophilia and thrombocytopenia (see 7.00D), with complications requiring at least three hospitalizations within a 12-month period and occurring at least 30 days apart. Each hospitalization must last at least 48 hours, which can include hours in a hospital emergency department or comprehensive hemophilia treatment center immediately before the hospitalization (see 7.00D2).

7.10 *Disorders of bone marrow failure*, including myelodysplastic syndromes, aplastic anemia, granulocytopenia, and myelofibrosis (see 7.00E), with:

A. Complications of bone marrow failure requiring at least three hospitalizations within a 12-month period and occurring at least 30 days apart. Each hospitalization must last at least 48 hours, which can include hours in a hospital emergency department immediately before the hospitalization (see 7.00E2).

OR

B. Myelodysplastic syndromes or aplastic anemias requiring life-long RBC transfusions at least once every 6 weeks to maintain life (see 7.00E3).

7.17 *Hematological disorders treated by bone marrow or stem cell transplantation* (see 7.00F). Consider under a disability for at least 12 consecutive months from the date of transplantation. After that, evaluate any residual impairment(s) under the criteria for the affected body system.

7.18 *Repeated complications of hematological disorders* (see 7.00G2), including those complications listed in 7.05, 7.08, and 7.10 but without the requisite findings for those listings, or other

complications (for example, anemia, osteonecrosis, retinopathy, skin ulcers, silent central nervous system infarction, cognitive or other mental limitation, or limitation of joint movement), resulting in significant, documented symptoms or signs (for example, pain, severe fatigue, malaise, fever, night sweats, headaches, joint or muscle swelling, or shortness of breath), and one of the following at the marked level (see 7.00G4):

A. Limitation of activities of daily living (see 7.00G5).

B. Limitation in maintaining social functioning (see 7.00G6).

C. Limitation in completing tasks in a timely manner due to deficiencies in concentration, persistence, or pace (see 7.00G7).

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13.00 MALIGNANT NEOPLASTIC DISEASES

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K. How do we evaluate specific malignant neoplastic diseases?

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2. Leukemia.

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c. Chronic lymphocytic leukemia.

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ii. We evaluate the complications and residual impairment(s) from chronic lymphocytic leukemia (CLL) under the appropriate listings, such as 13.05A2 or an appropriate listing in 7.00.

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3. Macroglobulinemia or heavy chain disease. * * * We evaluate the resulting impairment(s) under the criteria of 7.00 or any other affected body system.

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Part B

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107.00 HEMATOLOGICAL DISORDERS

A. What hematological disorders do we evaluate under these listings?

1. We evaluate non-malignant (non-cancerous) hematological disorders, such as hemolytic anemias (107.05), disorders of thrombosis and hemostasis (107.08), and disorders of bone marrow failure (107.10). These disorders disrupt the normal development and function of white blood cells, red blood cells, platelets, and clotting-factor proteins (factors).

2. We evaluate malignant (cancerous) hematological disorders, such as lymphoma, leukemia, and multiple myeloma under the appropriate listings in 113.00, except for lymphoma associated with human immunodeficiency virus (HIV) infection, which we evaluate under 114.08E.

B. What evidence do we need to document that you have a hematological disorder?

We need the following evidence to document that you have a hematological disorder:

1. A laboratory report of a definitive test that establishes a hematological disorder, signed by a physician; or

2. A laboratory report of a definitive test that establishes a hematological disorder that is not signed by a physician and a report from a physician that states you have the disorder; or

3. When we do not have a laboratory report of a definitive test, a persuasive report from a physician that a diagnosis of your hematological disorder was confirmed by appropriate laboratory analysis or other diagnostic method(s). To be persuasive, this report must state that you had the appropriate definitive laboratory test or tests for diagnosing your disorder and provide the results, or explain how your diagnosis was established by other diagnostic method(s) consistent with the prevailing state of medical knowledge and clinical practice.

4. We will make every reasonable effort to obtain the results of appropriate laboratory testing you have had. We will not purchase complex, costly, or invasive tests, such as tests of clotting-factor proteins, and bone marrow aspirations.

C. What are hemolytic anemias, and how do we evaluate them under 107.05?

1. Hemolytic anemias, both congenital and acquired, are disorders that result in premature destruction of red blood cells (RBCs). Hemolytic anemias include abnormalities of hemoglobin structure (hemoglobinopathies), abnormal RBC enzyme content and function, and RBC membrane (envelope) defects that are congenital or acquired. The diagnosis of hemolytic anemia is based on hemoglobin electrophoresis or analysis of the contents of the RBC (enzymes) and membrane. Examples of congenital hemolytic anemias include sickle cell disease, thalassemia, and their variants, and hereditary spherocytosis. Acquired hemolytic anemias may result from autoimmune disease (for example, systemic lupus erythematosus) or mechanical devices (for example, heart valves, intravascular patches).

2. The hospitalizations in 107.05B do not all have to be for the same complication of the hemolytic anemia. They may be for three different complications of the disorder. Examples of complications of hemolytic anemia that may result in hospitalization include dactylitis, osteomyelitis, painful (vaso-occlusive) crisis, pulmonary infections or infarctions, acute chest syndrome, pulmonary hypertension, chronic heart failure, gallbladder disease, hepatic (liver) failure, renal (kidney) failure, nephrotic syndrome, aplastic crisis, and strokes. We will count the hours you receive emergency treatment in a comprehensive sickle cell disease center immediately before the hospitalization if this treatment is comparable to the treatment provided in a hospital emergency department.

3. For 107.05C, we do not require hemoglobin to be measured during a period in which you are free of pain or other symptoms of your disorder. We will accept hemoglobin measurements made while you are experiencing complications of your hemolytic anemia.

4. 107.05D refers to the most serious type of beta thalassemia major in which the bone marrow cannot produce sufficient numbers of normal RBCs to maintain life. The only

available treatments for beta thalassemia major are life-long RBC transfusions (sometimes called hypertransfusion) or bone marrow transplantation. For purposes of 107.05D, we do not consider prophylactic RBC transfusions to prevent strokes or other complications in sickle cell disease and its variants to be of equal significance to life-saving RBC transfusions for beta thalassemia major. However, we will consider the functional limitations associated with prophylactic RBC transfusions and any associated side effects (for example, iron overload) under functional equivalence and any affected body system(s). We will also evaluate strokes and resulting complications under 111.00 and 112.00.

D. What are disorders of thrombosis and hemostasis, and how do we evaluate them under 107.08?

1. Disorders of thrombosis and hemostasis include both clotting and bleeding disorders, and may be congenital or acquired. These disorders are characterized by abnormalities in blood clotting that result in hypercoagulation (excessive blood clotting) or hypocoagulation (inadequate blood clotting). The diagnosis of a thrombosis or hemostasis disorder is based on evaluation of plasma clotting-factor proteins (factors) and platelets. Protein C or protein S deficiency and Factor V Leiden are examples of hypercoagulation disorders. Hemophilia, von Willebrand disease, and thrombocytopenia are examples of hypocoagulation disorders. Acquired excessive blood clotting may result from blood protein defects and acquired inadequate blood clotting (for example, acquired hemophilia A) may be associated with inhibitor autoantibodies.

2. The hospitalizations in 107.08 do not all have to be for the same complication of a disorder of thrombosis and hemostasis. They may be for three different complications of the disorder. Examples of complications that may result in hospitalization include anemias, thromboses, embolisms, and uncontrolled bleeding requiring multiple factor concentrate infusions or platelet transfusions. We will also consider any surgery that you have, even if it is not related to your hematological disorder, to be a complication of your disorder of thrombosis and hemostasis if you require treatment with clotting-factor proteins (for example, factor VIII or IX) or anticoagulant medication to control bleeding or coagulation in connection with your surgery. We will count the hours you receive emergency treatment in a comprehensive hemophilia treatment center immediately before the hospitalization if this treatment is comparable to the treatment provided in a hospital emergency department.

E. What are disorders of bone marrow failure, and how do we evaluate them under 107.10?

1. Disorders of bone marrow failure may be congenital or acquired, characterized by bone marrow that does not make enough healthy RBCs, platelets, or granulocytes (specialized types of white blood cells); there may also be a combined failure of these bone marrow-producing cells. The diagnosis is based on peripheral blood smears and bone marrow

aspiration or bone marrow biopsy, but not peripheral blood smears alone. Examples of these disorders are myelodysplastic syndromes, aplastic anemia, granulocytopenia, and myelofibrosis. Acquired disorders of bone marrow failure may result from viral infections, chemical exposure, or immunologic disorders.

2. The hospitalizations in 107.10A do not all have to be for the same complication of bone marrow failure. They may be for three different complications of the disorder. Examples of complications that may result in hospitalization include uncontrolled bleeding, anemia, and systemic bacterial, viral, or fungal infections.

3. For 107.10B, the requirement of life-long RBC transfusions to maintain life in myelodysplastic syndromes or aplastic anemias has the same meaning as it does for beta thalassemia major. (See 107.00C4.)

F. How do we evaluate bone marrow or stem cell transplantation under 107.17?

We will consider you to be disabled for 12 months from the date of bone marrow or stem cell transplantation, or we may consider you to be disabled for a longer period if you are experiencing any serious post-transplantation complications, such as graft-versus-host (GVH) disease, frequent infections after immunosuppressive therapy, or significant deterioration of organ systems. We do not restrict our determination of the onset of disability to the date of the transplantation in 107.17. We may establish an earlier onset of disability due to your transplantation if evidence in your case record supports such a finding.

G. How do we consider your symptoms, including your pain, severe fatigue, and malaise?

Your symptoms, including pain, severe fatigue, and malaise, may be important factors in our determination whether your hematological disorder meets or medically equals a listing, or in our determination whether you otherwise have marked and severe functional limitations. We cannot consider your symptoms unless you have medical signs or laboratory findings showing the existence of a medically determinable impairment(s) that could reasonably be expected to produce the symptoms. If you have such an impairment(s), we will evaluate the intensity, persistence, and functional effects of your symptoms using the rules throughout 107.00 and in our other regulations. (See sections 416.928 and 416.929 of this chapter.) Additionally, when we assess the credibility of your complaints about your symptoms and their functional effects, we will not draw any inferences from the fact that you do not receive treatment or that you are not following treatment without considering all of the relevant evidence in your case record, including any explanations you provide on why you are not receiving or following treatment.

H. How do we evaluate episodic events in hematological disorders?

Some of the listings in this body system require a specific number of events within a consecutive 12-month period. (See 107.05, 107.08, and 107.10A.) When we use such

criteria, a consecutive 12-month period means a period of 12 consecutive months, all or part of which must occur within the period we are considering in connection with your application or continuing disability review. These events must occur at least 30 days apart to ensure that we are evaluating separate events.

I. How do we evaluate hematological disorders that do not meet one of these listings?

1. These listings are only common examples of hematological disorders that we consider severe enough to result in marked and severe functional limitations. If your disorder does not meet the criteria of any of these listings, we must consider whether you have a disorder that satisfies the criteria of a listing in another body system. For example, we will evaluate hemophilic joint deformity under 101.00; polycythemia vera under 103.00, 104.00, or 111.00; chronic iron overload resulting from repeated RBC transfusion (transfusion hemosiderosis) under 103.00, 104.00, or 105.00; and the effects of intracranial bleeding or stroke under 111.00 or 112.00.

2. If you have a severe medically determinable impairment(s) that does not meet a listing, we will determine whether your impairment(s) medically equals a listing. (See section 416.926 of this chapter.) Hematological disorders may be associated with disorders in other body systems, and we consider the combined effects of multiple impairments when we determine whether they medically equal a listing. If your impairment(s) does not medically equal a listing, we will also consider whether it functionally equals the listings. (See section 416.926a of this chapter.) We use the rules in § 416.994a of this chapter when we decide whether you continue to be disabled.

107.01 Category of Impairments, Hematological Disorders

107.05 Hemolytic anemias, including sickle cell disease, thalassemia, and their variants (see 107.00C), with:

A. Documented painful (vaso-occlusive) crises requiring parenteral (intravenous or intramuscular) narcotic medication, occurring at least six times within a 12-month period with at least 30 days between crises.

OR

B. Complications of hemolytic anemia requiring at least three hospitalizations within a 12-month period and occurring at least 30 days apart. Each hospitalization must last at least 48 hours, which can include hours in a hospital emergency department or comprehensive sickle cell disease center immediately before the hospitalization (see 107.00C2).

OR

C. Hemoglobin measurements of 7.0 grams per deciliter (g/dL) or less, occurring at least three times within a 12-month period with at least 30 days between measurements.

OR

D. Beta thalassemia major requiring life-long RBC transfusions at least once every 6 weeks to maintain life (see 107.00C4).

107.08 Disorders of thrombosis and hemostasis, including hemophilia and

thrombocytopenia (see 107.00D), with complications requiring at least three hospitalizations within a 12-month period and occurring at least 30 days apart. Each hospitalization must last at least 48 hours, which can include hours in a hospital emergency department or comprehensive hemophilia treatment center immediately before the hospitalization (see 107.00D2).

107.10 Disorders of bone marrow failure, including myelodysplastic syndromes, aplastic anemia, granulocytopenia, and myelofibrosis (see 107.00E), with:

A. Complications of bone marrow failure requiring at least three hospitalizations within a 12-month period and occurring at least 30 days apart. Each hospitalization must last at least 48 hours, which can include hours in a hospital emergency department immediately before the hospitalization (see 107.00E2).

OR

B. Myelodysplastic syndromes or aplastic anemias requiring life-long RBC transfusions at least once every 6 weeks to maintain life (see 107.00E3).

107.17 Hematological disorders treated by bone marrow or stem cell transplantation (see 107.00F). Consider under a disability for at least 12 consecutive months from the date of transplantation. After that, evaluate any residual impairment(s) under the criteria for the affected body system.

* * * * *

[FR Doc. 2015-08849 Filed 4-16-15; 8:45 am]

BILLING CODE 4191-02-P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

26 CFR Part 1

[TD 9674]

RIN 1545-BM07

Guidelines for the Streamlined Process of Applying for Recognition of Section 501(c)(3) Status; Correction

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Final rule; correction.

SUMMARY: This document contains a correction to final and temporary regulations (TD 9674) that were published in the **Federal Register** on Wednesday, July 2, 2014 (79 FR 37630). The final and temporary regulations provide guidance to eligible organizations seeking recognition of tax-exempt status under section 501(c)(3) of the Internal Revenue Code.

DATES: This correction is effective April 17, 2015 and applicable July 2, 2014.

FOR FURTHER INFORMATION CONTACT: James R. Martin and Robin Ehrenberg, at (202) 317-5800 (not a toll free number).

SUPPLEMENTARY INFORMATION:

Background

The final and temporary regulations (TD 9674) that are the subject of this correction are under section 501(c)(3) of the Internal Revenue Code.

Need for Correction

As published, the final and temporary regulation (TD 9674) contains an error and is in need of clarification.

Correction of Publication

In FR Doc. 2014–15623 appearing on page 37630 in the **Federal Register** of Wednesday, July 2, 2014, the following correction is made:

§ 1.508–1T [Corrected]

On page 37632, the amendatory instruction reading “Par. 7. Section 1.508–1T is revised to read as follows:” is corrected to read “Par. 7. Section 1.508–1T is added to read as follows:”.

Martin V. Franks,

Chief, Publications and Regulations Branch, Legal Processing Division, Associate Chief Counsel (Procedure and Administration).

[FR Doc. 2015–08856 Filed 4–16–15; 8:45 am]

BILLING CODE 4830–01–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R04–OAR–2014–0867; FRL–9926–41–Region–4]

Approval and Promulgation of Implementation Plans; Alabama: Non-Interference Demonstration for Federal Low-Reid Vapor Pressure Requirement for the Birmingham Area

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving the State of Alabama’s November 14, 2014, State Implementation Plan (SIP) revision, submitted through the Alabama Department of Environmental Management (ADEM), in support of the State’s request that EPA change the Federal Reid Vapor Pressure (RVP) requirements for Jefferson and Shelby Counties (hereinafter referred to as the “Birmingham Area” or “Area”). Alabama’s November 14, 2014, SIP revision evaluates whether changing the Federal RVP requirements in this Area would interfere with the Area’s ability to meet the requirements of the Clean Air Act (CAA or Act). Specifically, Alabama’s SIP revision concludes that relaxing the Federal RVP requirement

from 7.8 pounds per square inch (psi) to 9.0 psi for gasoline sold between June 1 and September 15 of each year in the Area would not interfere with attainment or maintenance of the national ambient air quality standards (NAAQS) or with any other CAA requirement. EPA has determined that Alabama’s November 14, 2014, SIP revision is consistent with the CAA.

DATES: This rule will be effective April 17, 2015.

ADDRESSES: EPA has established a docket for this action under Docket Identification No. EPA–R04–OAR–2014–0867. All documents in the docket are listed on the www.regulations.gov Web site. Although listed in the index, some information is not publicly available, *i.e.*, Confidential Business Information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through www.regulations.gov or in hard copy at the Air Regulatory Management Section (formerly the Regulatory Development Section), Air Planning and Implementation Branch (formerly the Air Planning Branch), Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street SW., Atlanta, Georgia 30303–8960. EPA requests that if at all possible, you contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. The Regional Office’s official hours of business are Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding Federal holidays.

FOR FURTHER INFORMATION CONTACT: Richard Wong of the Air Regulatory Management Section, in the Air Planning and Implementation Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street SW., Atlanta, Georgia 30303–8960. Mr. Wong may be reached by phone at (404) 562–8726 or via electronic mail at wong.richard@epa.gov.

SUPPLEMENTARY INFORMATION:

I. What is the background for this final action?

The Birmingham Area was originally designated as a 1-hour ozone nonattainment area by EPA on March 3, 1978 (43 FR 8962). A 7.8 psi Federal RVP requirement was first applied to the Area during the high ozone season given its status as a marginal nonattainment area for the 1-hour ozone

standard. Subsequently, in order to comply with the 1-hour ozone NAAQS, Alabama opted to implement a state RVP requirement of 7.0 psi for gasoline sold in the Birmingham Area during the high ozone season. EPA incorporated the state RVP requirement of 7.0 psi for gasoline sold in the Birmingham Area into the Alabama SIP on November 7, 2001. *See* 66 FR 56218. The Area attained the 1-hour ozone NAAQS and was redesignated to attainment for the 1-hour ozone on March 12, 2004, based on 2001–2003 ambient air quality monitoring data. *See* 69 FR 11798. Alabama’s 1-hour ozone redesignation request did not include a request to remove the 7.0 psi state RVP requirement for the Birmingham Area from the SIP nor a request to relax the 7.8 psi Federal RVP standard.

On April 30, 2004, EPA designated and classified areas for the 8-hour ozone NAAQS that was promulgated on July 18, 1997, as unclassifiable/attainment or nonattainment for the new 8-hour ozone NAAQS. *See* 69 FR 23857. The Birmingham Area was designated as nonattainment for the 1997 8-hour ozone NAAQS with a design value of 0.087 parts per million (ppm). The Area was redesignated to attainment for the 1997 8-hour ozone NAAQS in a final rulemaking on May 12, 2006. *See* 71 FR 27631. Alabama’s 1997 8-hour ozone redesignation request did not include a request for the removal of the 7.8 psi Federal RVP standard, nor did it include a request to change the 7.0 psi state RVP requirement for the Birmingham Area. However, to support its request for redesignation to attainment for the 1997 8-hour ozone NAAQS, Alabama took a conservative approach and estimated emissions using a 9.0 psi RVP in its modeling supporting the State’s maintenance demonstration.

On March 2, 2012, Alabama submitted a SIP revision requesting that EPA remove the State’s 7.0 psi RVP requirement for the Area from the SIP. EPA approved Alabama’s March 2, 2012, SIP revision on April 20, 2012. *See* 77 FR 23619. In EPA’s final rulemaking to remove the State RVP requirement, EPA noted that the action did not remove the 7.8 psi Federal RVP requirement for the Birmingham Area. Effective July 20, 2012, EPA designated the Birmingham Area as unclassifiable/attainment for the 2008 8-hour ozone NAAQS. *See* 77 FR 30088 (April 30, 2012). Although the Birmingham Area is designated as attainment, the federal 7.8 psi RVP requirement remains in place.

Alabama is now requesting that EPA remove the federal 7.8 psi RVP requirement for the Birmingham Area, and it submitted a SIP revision on

November 14, 2014, containing a noninterference demonstration to support its request.

II. What is the history of the gasoline volatility requirement?

On August 19, 1987 (52 FR 31274), EPA determined that gasoline nationwide had become increasingly volatile, causing an increase in evaporative emissions from gasoline-powered vehicles and equipment. Evaporative emissions from gasoline, referred to as volatile organic compounds (VOCs), are precursors to the formation of tropospheric ozone and contribute to the nation's ground-level ozone problem. Exposure to ground-level ozone can reduce lung function (thereby aggravating asthma or other respiratory conditions), increase susceptibility to respiratory infection, and may contribute to premature death in people with heart and lung disease.

The most common measure of fuel volatility that is useful in evaluating gasoline evaporative emissions is RVP. Under section 211(c) of CAA, EPA promulgated regulations on March 22, 1989 (54 FR 11868), that set maximum limits for the RVP of gasoline sold during the high ozone season. These regulations constituted Phase I of a two-phase nationwide program, which was designed to reduce the volatility of commercial gasoline during the summer ozone control season. On June 11, 1990 (55 FR 23658), EPA promulgated more stringent volatility controls as Phase II of the volatility control program. These requirements established maximum RVP standards of 9.0 psi or 7.8 psi (depending on the State, the month, and the area's initial ozone attainment designation with respect to the 1-hour ozone NAAQS during the high ozone season).

The 1990 CAA Amendments established a new section, 211(h), to address fuel volatility. Section 211(h) requires EPA to promulgate regulations making it unlawful to sell, offer for sale, dispense, supply, offer for supply, transport, or introduce into commerce gasoline with an RVP level in excess of 9.0 psi during the high ozone season. Section 211(h) prohibits EPA from establishing a volatility standard more stringent than 9.0 psi in an attainment area, except that EPA may impose a lower (more stringent) standard in any former ozone nonattainment area redesignated to attainment.

On December 12, 1991 (56 FR 64704), EPA modified the Phase II volatility regulations to be consistent with section 211(h) of the CAA. The modified regulations prohibited the sale of gasoline with an RVP above 9.0 psi in

all areas designated attainment for ozone, beginning in 1992. For areas designated as nonattainment, the regulations retained the original Phase II standards published on June 11, 1990 (55 FR 23658). A current listing of the RVP requirements for states can be found at 40 CFR 80.27(a)(2) as well as on EPA's Web site at: <http://www.epa.gov/otaq/fuels/gasolinefuels/volatility/standards.htm>.

As explained in the December 12, 1991 (56 FR 64704), Phase II rulemaking, EPA believes that relaxation of an applicable RVP standard is best accomplished in conjunction with the redesignation process. In order for an ozone nonattainment area to be redesignated as an attainment area, section 107(d)(3) of the Act requires the state to make a showing, pursuant to section 175A of the Act, that the area is capable of maintaining attainment for the ozone NAAQS for ten years after redesignation. Depending on the area's circumstances, this maintenance plan will either demonstrate that the area is capable of maintaining attainment for ten years without the more stringent volatility standard or that the more stringent volatility standard may be necessary for the area to maintain its attainment with the ozone NAAQS. Therefore, in the context of a request for redesignation, EPA will not relax the volatility standard unless the state requests a relaxation and the maintenance plan demonstrates, to the satisfaction of EPA, that the area will maintain attainment for ten years without the need for the more stringent volatility standard.

As noted above, Alabama did not request relaxation of the applicable 7.8 psi federal RVP standard when the Birmingham Area was redesignated to attainment for the either the 1-hour or the 1997 8-hour ozone NAAQS but did take a conservative approach in estimating emissions for the maintenance plan associated with its redesignation request for the 1997 8-hour ozone NAAQS by using a level of 9.0 psi.

III. What are the Section 110(l) requirements?

To support Alabama's request to relax the federal RVP requirement in the Birmingham Area, the State must demonstrate that the requested change will satisfy section 110(l) of the CAA. Section 110(l) requires that a revision to the SIP not interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 171), or any other applicable requirement of the Act. EPA's criterion

for determining the approvability of Alabama's November 14, 2014, SIP revision is whether the noninterference demonstration associated with the relaxation request satisfies section 110(l). Although the modeling associated with Alabama's maintenance plans for the 1997 8-hour ozone NAAQS and the 1997 Annual PM_{2.5} and are premised upon the 9.0 psi RVP requirements, no requests for a change in the federal RVP requirement were made at the time that EPA approved these plans.¹ EPA's approval of the maintenance plans was based on an evaluation of the air quality monitoring data at the time of the EPA actions, the information provided in the individual maintenance plans, and the maintenance plan requirements in the CAA.

EPA evaluates each section 110(l) noninterference demonstration on a case-by-case basis considering the circumstances of each SIP revision. EPA interprets 110(l) as applying to all NAAQS that are in effect, including those that have been promulgated but for which the EPA has not yet made designations. The degree of analysis focused on any particular NAAQS in a noninterference demonstration varies depending on the nature of the emissions associated with the SIP revision. The State's SIP submission included a noninterference demonstration evaluating the impact that the removal of the 7.8 psi RVP requirement would have on maintenance of the 1997 and 2008 ozone standards and on the maintenance of the other NAAQS. ADEM's noninterference analysis utilized EPA's 2010b Motor Vehicle Emissions Simulator (MOVES) emission modeling system to estimate the potential impacts to the NAAQS that might result from changing the high ozone season RVP requirement from 7.8 psi to 9.0 psi. The modeling results predicted minor increases in VOC and NO_x emissions from RVP relaxation and larger decreases in emissions resulting from fleet turnover. The modeling also predicted continual decreases in VOC and NO_x emissions from mobile sources

¹ The State used a planning factor of 7.8 psi in its maintenance plan associated with the redesignation for the 2006 24-hour PM_{2.5} NAAQS. In the February 13, 2015, proposed rulemaking action, EPA incorrectly stated that the modeling associated with that maintenance plan was premised on a 9.0 psi RVP requirement. Alabama's use of a 7.8 psi planning factor in the aforementioned maintenance plan does not affect EPA's analysis of the State's November 14, 2014 noninterference demonstration because the demonstration does not rely on that maintenance plan or the modeling associated with that maintenance plan.

for years 2015 through 2024 using 9.0 psi RVP fuel and the fleet turnover assumptions contained in EPA's 2010b MOVES model. Therefore, the state's modeling analysis demonstrated that a change in the summertime RVP limit to 9.0 psi would not interfere with attainment or maintenance of the ozone, PM or NO₂ NAAQS. EPA presented a detailed analysis of the State's noninterference demonstration in Section V of the proposed rulemaking notice. See 80 FR 8018, 8020–23 (February 13, 2015).

EPA notes that this action only approves the State's technical demonstration that the Area can attain and maintain the NAAQS and meet other CAA requirements after switching to the sale of gasoline with an RVP of 9.0 psi in the Birmingham Area during the high ozone season and amends the SIP to include this demonstration. Consistent with CAA section 211(h) and the Phase II volatility regulations, EPA will initiate a separate rulemaking to relax the current federal requirement to use gasoline with an RVP of 7.8 psi in the Birmingham Area.

IV. What is EPA's response to comments?

EPA received two sets of comments on its February 13, 2015, proposed rulemaking action. Specifically, EPA received comments from Sierra Club and from one member of the general public (these commenters are hereinafter collectively referred to as "the Commenter"). Full sets of these comments are provided in the docket for this final action. A summary of the comments and EPA's responses are provided below.

Comment 1: The Commenter does not believe that the Deputy Regional Administrator was authorized to sign the proposed approval of Alabama's SIP submission because, according to the Commenter, only the Regional Administrator is authorized under EPA's delegations manual to sign regional SIP actions.

Response 1: The Commenter is incorrect. Under CAA section 110(k), the EPA Administrator is tasked with acting on SIP submittals by approving or disapproving the submittal in whole or in part. This authority may be delegated to other EPA officials. It is the EPA's policy that, in order for other Agency management officials to act on behalf of the Administrator, the authority must be delegated officially. These official delegations are recorded in the "EPA Delegations Manual." Under EPA Delegation 1–21, **Federal Register** (1200 TN 543, 4/22/2002), the EPA Administrator has delegated the

authority to sign and submit proposed actions on SIPs for publication in the **Federal Register** to the Assistant Administrator for Air and Radiation and to Regional Administrators. Section 2.d. This delegation allows for this authority to be redelegated to the Deputies of the authorized officials. Section 4.a. Based on the authority to redelegate provided in Delegation 1–21, EPA Region 4 redelegated the authority to sign and submit proposed actions on SIPs for publication in the **Federal Register** to the Deputy Regional Administrator. See EPA Region 4 Delegation 1–21. Therefore, an appropriate EPA official, the Region 4 Deputy Regional Administrator, signed and submitted the proposal to approve Alabama's November 14, 2014, SIP submission. EPA notes that an earlier delegation, Delegation 7–10. Approval/Disapproval of State Implementation Plans (1200 TN 441, 5/6/97), did not allow redelegation of the authority to act on proposed SIP actions beyond the Regional Administrator. Because Delegation 1–21 post-dates Delegation 7–10 and specifically addresses the authority at issue, it is the applicable delegation for EPA's February 13, 2015, proposed rulemaking action. Delegation 1–21 does not change the limitation on redelegation beyond the Regional Administrator found in Delegation 7–10 for final actions on SIPs.

Comment 2: The Commenter "would not approve of the noninterference demonstration submitted by the SIP because there has been insufficient evidence to show that the pollution levels will continue to decrease for the next ten years." The Commenter acknowledges that the "data shows that there has been a downtrend in the amount of pollution," but believes that the data collected by the State was "based on RVP numbers when the requirements for RVP was to keep it under 7.8 RVP" and that "there is nothing to say that this downtrend isn't the result of the requirement itself." According to the Commenter, EPA should require evidence that the downtrend will continue despite the "raised requirements for RVP."

Response 2: EPA disagrees with the Commenter. The criterion for determining the approvability of Alabama's November 14, 2014, SIP revision is whether the noninterference demonstration satisfies section 110(l). Under this section of the CAA, EPA can approve a SIP relaxation if the State demonstrates that any increases allowed by the revision would not be enough to interfere with NAAQS attainment or maintenance. There is no prescriptive CAA requirement that each

noninterference analysis demonstrate that pollution levels will decrease for ten years following the relaxation of a SIP requirement.

In its demonstration, Alabama used EPA's mobile source modeling software to estimate the change in mobile source emissions resulting from a switch to 9.0 psi RVP fuel and to estimate total mobile source emissions over the next ten years using 9.0 psi RVP fuel. Alabama's modeling projects that mobile source emissions will continue to decrease in the Area through 2024 with the use of 9.0 psi RVP fuel and that the minor increases in VOC and NO_x emissions from RVP relaxation are outweighed by larger decreases in emissions resulting from fleet turnover.² The ozone and PM design values presented in Tables 4 and 5 of the proposed rulemaking notice are far enough below the NAAQS that the minor increase in mobile source emissions associated with the RVP relaxation, ignoring reductions from fleet turnover, would not interfere with maintenance of these standards. EPA acknowledges that the downtrend in these design values was observed while 7.8 psi RVP fuel was used in the Area; however, the State's modeling predicts that this downtrend will continue with the use of 9.0 psi RVP fuel.

Comment 3: The Commenter believes that approving the State's noninterference demonstration would be "contradictory to the purpose of the CAA;" that "we should be taking steps toward limiting gasoline consumption and RVP levels, not steps backwards;" and that "unless dire need is shown to raise the levels, as has not been shown here, we should not allow an increase in pollution by a State."

Response 3: EPA disagrees with the Commenter. The Administrator is required to approve a SIP submittal that complies with the provisions of the Act, and as discussed above, section 110(l) governs EPA's evaluation of Alabama's noninterference demonstration.³ 42 U.S.C. 7410(k); 40 CFR 52.02(a). The test for approvability under section 110(l) is not "dire need," it is whether any emissions increases resulting from the proposed SIP relaxation would be

² Alabama estimated that relaxing the RVP standard would increase NO_x and VOC emissions by 24 tpy and 80 tpy, respectively, and that fleet turnover will reduce NO_x and VOC emissions by 489 tpy and 156 tpy, respectively, in the Area for 2015. See 80 FR 8021.

³ EPA also notes that the requested change from 7.8 psi to 9.0 psi is within the federal approved RVP limit for ozone attainment areas. See 40 CFR 80.27; CAA section 211(h)(2) (prohibiting EPA from establishing a volatility standard more stringent than 9.0 psi in an ozone attainment area that was not redesignated from nonattainment).

enough to interfere with the attainment or maintenance of a NAAQS. EPA is therefore approving the nonattainment demonstration pursuant to section 110(l) because it has concluded that the switch to 9.0 psi RVP fuel will not interfere with the attainment or maintenance of a NAAQS for the reasons discussed in Response 2 and in Section V of the proposed rulemaking notice.

V. Final Action

EPA is taking final action to approve the State of Alabama's noninterference demonstration, submitted on November 14, 2014, in support of the State's request that EPA change the Federal RVP requirements for the Birmingham Area from 7.8 psi to 9.0 psi. Specifically, EPA is approving that this change in the RVP requirements for the Birmingham Area will not interfere with attainment or maintenance of any NAAQS or with any other applicable requirement of the CAA.

EPA has determined that Alabama's November 14, 2014, SIP revision, containing the noninterference demonstration associated with the State's request for the change of the Federal RVP requirements is consistent with the applicable provisions of the CAA. EPA is not approving action today to remove the Birmingham Area from the Federal 7.8 psi RVP requirement. Any such action will occur in a separate and subsequent rulemaking.

In accordance with 5 U.S.C. 553(d), EPA finds that there is good cause for this action to become effective immediately upon publication. This is because a delayed effective date is unnecessary because this action approves a noninterference demonstration that will serve as the basis of a subsequent action to relieve the Area from certain CAA requirements that would otherwise apply to it. The immediate effective date for this action is authorized under both 5 U.S.C. 553(d)(1), which provides that rulemaking actions may become effective less than 30 days after publication if the rule grants or recognizes an exemption or relieves a restriction, and section 553(d)(3), which allows an effective date less than 30 days after publication as otherwise provided by the agency for good cause found and published with the rule. The purpose of the 30-day waiting period prescribed in section 553(d) is to give affected parties a reasonable time to adjust their behavior and prepare before the final rule takes effect. This rule, however, does not create any new regulatory requirements such that affected parties would need time to

prepare before the rule takes effect. Rather, this rule will serve as a basis for a subsequent action to relieve the Area from certain CAA requirements. For these reasons, EPA finds good cause under 5 U.S.C. 553(d)(3) for this action to become effective on the date of publication of this action.

VI. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submittal that complies with the provisions of the Act and applicable federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves state law as meeting Federal requirements and does not propose to impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4);
- does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, October 7, 1999);
- is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000) nor will it impose substantial direct costs on tribal governments or preempt tribal law.

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by June 16, 2015. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. *See* section 307(b)(2).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Volatile organic compounds.

Dated: April 7, 2015.

Heather McTeer Toney,

Regional Administrator, Region 4.

40 CFR parts 52 is amended as follows:

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

- 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

interference Demonstration for Federal Low-Reid Vapor Pressure Requirement for the Birmingham Area” at the end of the table to read as follows:

§ 52.50 Identification of plan.

* * * * *
(e) * * *

Subpart B—Alabama

■ 2. Section 52.50(e) is amended by adding a new entry for “Non-

EPA APPROVED ALABAMA NON-REGULATORY PROVISIONS

Name of nonregulatory SIP provision	Applicable geographic or nonattainment area	State submittal date/effective date	EPA approval date	Explanation
* * * * *	* * * * *	* * * * *	* * * * *	* * * * *
Non-interference Demonstration for Federal Low-Reid Vapor Pressure Requirement for the Birmingham Area.	Jefferson and Shelby Counties.	11/14/2014	4/17/2015 [Insert citation of publication].	

[FR Doc. 2015–08884 Filed 4–16–15; 8:45 am]
BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R05–OAR–2014–0294; FRL–9926–29–Region–5]

Approval and Promulgation of Air Quality Implementation Plans; Indiana; CO Monitoring

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving a revision to Indiana’s monitoring requirements as a revision to the State Implementation Plan (SIP). The SIP revision was submitted by Indiana to EPA on January 22, 2014. Once approved, the SIP would authorize emission units that combust sewage sludge to continuously monitor carbon monoxide emissions, consistent with Federal requirements.

DATES: This direct final rule will be effective June 16, 2015, unless EPA receives adverse comments by May 18, 2015. If adverse comments are received, EPA will publish a timely withdrawal of the direct final rule in the **Federal Register** informing the public that the rule will not take effect.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–R05–OAR–2014–0294, by one of the following methods:

1. *www.regulations.gov*: Follow the on-line instructions for submitting comments.
2. *Email:* blakley.pamela@epa.gov.
3. *Fax:* (312) 692–2490.
4. *Mail:* Pamela Blakley, Chief, Control Strategies Section, Air Programs Branch (AR–18J), U.S. Environmental

Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604.

5. *Hand Delivery:* Pamela Blakley, Chief, Control Strategies Section, Air Programs Branch (AR–18J), U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604. Such deliveries are only accepted during the Regional Office normal hours of operation, and special arrangements should be made for deliveries of boxed information. The Regional Office official hours of business are Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding Federal holidays.

Instructions: Direct your comments to Docket ID No. EPA–R05–OAR–2014–0294. EPA’s policy is that all comments received will be included in the public docket without change and may be made available online at *www.regulations.gov*, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *www.regulations.gov* or email. The *www.regulations.gov* Web site is an “anonymous access” system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to EPA without going through *www.regulations.gov* your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact

you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the docket are listed in the *www.regulations.gov* index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in *www.regulations.gov* or in hard copy at the Environmental Protection Agency, Region 5, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. This facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding Federal holidays. We recommend that you telephone Matt Rau, Environmental Engineer, at (312) 886–6524 before visiting the Region 5 office.

FOR FURTHER INFORMATION CONTACT: Matt Rau, Environmental Engineer, Control Strategies Section, Air Programs Branch (AR–18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 886–6524, rau.matthew@epa.gov.

SUPPLEMENTARY INFORMATION: Throughout this document whenever “we”, “us”, or “our” is used, we mean EPA. This supplementary information section is arranged as follows:

- I. What is the background for this action?
- II. What is EPA’s analysis?
- III. What action is EPA taking?
- IV. Incorporation by Reference
- V. Statutory and Executive Order Reviews

I. What is the background for this action?

On January 22, 2014, Indiana submitted a request to EPA to revise Title 326 of the Indiana Administration Code (IAC) Article 3—Monitoring Requirements, Rule 5—Continuous Monitoring of Emissions, Section 1—Applicability; Continuous Monitoring Requirements for Applicable Pollutants.

In the current SIP, 326 IAC 3–5–1(b)(6), requires sewage sludge combustion units to continuously monitor total hydrocarbons, oxygen, moisture, and temperature. The SIP revision provides the sewage sludge combustion units the option to monitor carbon monoxide emissions as an alternate to monitoring total hydrocarbons. In doing so, sources must also comply with a 100 parts-per-million (ppm) total carbon monoxide limit. The continuous carbon monoxide monitoring requirements are specified at 326 IAC 3–5–1(b)(6)(A)(i) and (ii).

The SIP revision is consistent with 40 CFR 503.40, the Federal Standards for the Incineration of Sewage Sludge. This Federal regulation, promulgated pursuant to the Clean Water Act, authorizes sewage sludge combustion sources to continuously monitor carbon monoxide as an alternative to continuously monitoring total hydrocarbons emissions. The regulation requires that the carbon monoxide monitoring be corrected for zero percent moisture and to seven percent oxygen.

II. What is EPA's analysis?

In its approval of 40 CFR 503.40, EPA determined that sewage sludge incinerators are expected to meet the 100 ppm total hydrocarbon monthly limit when the monthly average carbon monoxide concentration does not exceed 100 ppm. See 59 FR 9099 (February 25, 1994). The Federal rule requires that the continuous carbon monoxide monitor must be corrected for zero percent moisture and to seven percent oxygen. The revision to 326 IAC 3–5–1 is consistent with the monitoring requirements in 40 CFR 503.40. EPA finds the requested revision to be approvable.

III. What action is EPA taking?

EPA is approving a revision to 326 IAC 3–5–1 into the Indiana SIP. The SIP revision would authorize emission units that combust sewage sludge to continuously monitor carbon monoxide emissions, consistent with Federal requirements.

We are publishing this action without prior proposal because we view this as a noncontroversial amendment and

anticipate no adverse comments. However, in the proposed rules section of this **Federal Register** publication, we are publishing a separate document that will serve as the proposal to approve the state plan if relevant adverse written comments are filed. This rule will be effective June 16, 2015 without further notice unless we receive relevant adverse written comments by May 18, 2015. If we receive such comments, we will withdraw this action before the effective date by publishing a subsequent document that will withdraw the final action. All public comments received will then be addressed in a subsequent final rule based on the proposed action. EPA will not institute a second comment period. Any parties interested in commenting on this action should do so at this time. Please note that if EPA receives adverse comment on an amendment, paragraph, or section of this rule and if that provision may be severed from the remainder of the rule, EPA may adopt as final those provisions of the rule that are not the subject of an adverse comment. If we do not receive any comments, this action will be effective June 16, 2015.

IV. Incorporation by Reference

In this rule, EPA is finalizing regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, EPA is finalizing the incorporation by reference of the Indiana Regulations described in the amendments to 40 CFR part 52 set forth below. EPA has made, and will continue to make, these documents generally available electronically through www.regulations.gov and/or in hard copy at the appropriate EPA office (see the **ADDRESSES** section of this preamble for more information).

VI. Statutory and Executive Order Reviews

Under the Clean Air Act (CAA), the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735,

October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);

- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**.

This action is not a "major rule" as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by June 16, 2015. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. Parties with objections to this direct final rule are encouraged to file a comment in response to the parallel notice of proposed rulemaking for this action published in the proposed rules section

of this **Federal Register**, rather than file an immediate petition for judicial review of this direct final rule, so that EPA can withdraw this direct final rule and address the comment in the proposed rulemaking. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: April 2, 2015.

Susan Hedman,
Regional Administrator, Region 5.

40 CFR part 52 is amended as follows:

EPA-APPROVED INDIANA REGULATIONS

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

■ 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

■ 2. In § 52.770, the table in paragraph (c) is amended by revising the entry for 3–5–1 under "Article 3. Monitoring Requirements", "Rule 5. Continuous Monitoring of Emissions" to read as follows:

§ 52.770 Identification of plan.

* * * * *

(c) * * *

Indiana citation	Subject	Indiana effective date	EPA Approval date	Notes
*	*	*	*	*
Article 3. Monitoring Requirements				
*	*	*	*	*
Rule 5. Continuous Monitoring of Emissions				
3–5–1	Applicability; continuous monitoring requirements for applicable pollutants.	1/15/2014	4/17/2015, [insert Federal Register citation].	
*	*	*	*	*

* * * * *
[FR Doc. 2015–08885 Filed 4–16–15; 8:45 am]
BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R09–OAR–2014–0861; FRL–9925–81–Region 9]

Approval and Promulgation of Air Quality Implementation Plans; Arizona; Regional Haze Federal Implementation Plan; Reconsideration

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is taking final action to revise certain provisions in the Arizona Regional Haze (RH) Federal Implementation Plan (FIP) that apply to the Nelson Lime Plant. In response to a

request for reconsideration from the plant's owner, Lhoist North America of Arizona, Inc. (LNA), we are replacing the control technology demonstration requirements for emissions of nitrogen oxides (NO_x) applicable to Kilns 1 and 2 at the Nelson Lime Plant with revised recordkeeping and reporting requirements. We are not revising any of the emission limits that apply to these units, including the existing NO_x emission limits, which can be met with selective non-catalytic reduction (SNCR) control technology. We also are taking final action to correct a misprint of the regulatory requirements in a table in the Arizona RH FIP that identifies the emission limits for NO_x and sulfur dioxide (SO₂) at each kiln.

DATES: *Effective date:* This rule is effective May 18, 2015.

ADDRESSES: EPA has established docket number EPA–R09–OAR–2014–0861 for this action. Generally, documents in the docket are available electronically at <http://www.regulations.gov> or in hard

copy at EPA Region 9, 75 Hawthorne Street, San Francisco, California. Please note that while many of the documents in the docket are listed at <http://www.regulations.gov>, some information may not be specifically listed in the index to the docket and may be publicly available only at the hard copy location (e.g., copyrighted material, large maps, multi-volume reports, or otherwise voluminous materials), and some may not be available at either locations (e.g., confidential business information). To inspect the hard copy materials, please schedule an appointment during normal business hours with the contact listed directly below.

FOR FURTHER INFORMATION CONTACT: Thomas Webb, U.S. EPA, Region 9, Planning Office, Air Division, Air–2, 75 Hawthorne Street, San Francisco, CA 94105. Thomas Webb can be reached at telephone number (415) 947–4139 and via electronic mail at webb.thomas@epa.gov.

SUPPLEMENTARY INFORMATION:

Definitions

For the purpose of this document, “we,” “us,” and “our” refer to EPA. We also are giving meaning to certain words or initials as follows:

- The words or initials *Act* or *CAA* mean or refer to the Clean Air Act, unless the context indicates otherwise.
- The initials *ADEM* mean or refer to the Alabama Department of Environmental Management.
- The initials *ADEQ* mean or refer to the Arizona Department of Environmental Quality.
- The words *Arizona* and *State* mean the State of Arizona.
- The initials *BACT* mean or refer to Best Available Control Technology.
- The initials *BART* mean or refer to Best Available Retrofit Technology.
- The initials *CAA* mean or refer to the Clean Air Act.
- The term *Class I area* refers to a mandatory Class I Federal area.¹
- The initials *CBI* mean or refer to Confidential Business Information.
- The initials *CEMS* mean or refer to continuous emission monitoring system or systems.
- The words *EPA*, *we*, *us* or *our* mean or refer to the United States Environmental Protection Agency.
- The initials *FIP* mean or refer to Federal Implementation Plan.
- The initials *LNA* mean or refer to Lhoist North America of Arizona, Inc.
- The initials *MMBtu* mean or refer to million British thermal units.
- The initials *NO_x* mean or refer to nitrogen oxides.
- The initials *RH* mean or refer to regional haze.
- The initials *RHR* mean or refer to EPA’s Regional Haze Rule.
- The initials *SIP* mean or refer to State Implementation Plan.
- The initials *SNCR* mean or refer to selective non-catalytic reduction.
- The initials *SO₂* mean or refer to sulfur dioxide.

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I. Summary of Proposed Action

EPA proposed on January 13, 2015, to revise certain Best Available Retrofit Technology (BART) requirements in the

¹ Although states and tribes may designate as Class I additional areas that they consider to have visibility as an important value, the requirements of the visibility program set forth in section 169A of the CAA apply only to “mandatory Class I Federal areas.”

FIP related to reducing NO_x emissions from Kilns 1 and 2 at the Nelson Lime Plant.² As described in the proposal, the revision consists of several components, including the removal of the control technology demonstration requirements, the addition of revised recordkeeping and reporting requirements, and the correction of an error in a table.³ We proposed to find that these changes are reasonable and appropriate based on information from LNA regarding the effectiveness of using SNCR to control NO_x emissions at another lime plant. The proposed rule addressing the Nelson Lime Plant did not change the emission limits, compliance deadlines, or the compliance determination methods established in the final rule for the Arizona RH FIP.

II. Background on Petition for Reconsideration and Stay

LNA submitted a petition to EPA on October 31, 2014, seeking administrative reconsideration and a partial stay of the final rule under CAA section 307(d)(7)(B).⁴ Specifically, LNA requested that EPA eliminate the control technology demonstration requirements (also known as “optimization requirements”) for the Nelson Lime Plant. In support of its petition, LNA provided additional data regarding the performance of SNCR control technology at lime kilns located at another LNA facility, the O’Neal Lime Plant in Calera, Alabama. In the petition, LNA also requested a stay of the provisions in the FIP applicable to the Nelson Lime Plant if EPA did not propose action on its petition prior to December 31, 2014.⁵ EPA sent a letter to LNA on November 20, 2014, granting reconsideration of the optimization requirements pursuant to CAA section 307(d)(7)(B).⁶

III. Public Comments

In the proposed rule, EPA provided 45 days for the public to submit comments on the proposed revision to the Arizona RH FIP. During the public comment period, we received one set of comments from the Mississippi Lime

² 80 FR 1608. The notice of proposed rulemaking contains background information on the visibility requirements of the CAA, the RHR, and the Arizona RH FIP.

³ *Id.*

⁴ Letter from Eric Hiser, Jordan Bischoff & Hiser, to Regina McCarthy, EPA (October 31, 2014).

⁵ Because the proposal was signed prior to December 31, 2014, we consider LNA’s request for a stay to be moot.

⁶ Letter from Jared Blumenfeld, EPA, to Eric Hiser, Jordan Bischoff & Hiser (November 20, 2014).

Company (“Mississippi Lime”).⁷ The comments from Mississippi Lime focused on the requirement for LNA to install SNCR controls at the Nelson Lime Plant. The comments and our responses are summarized below.

Comment: Mississippi Lime stated that SNCR technology has not been identified as Best Available Control Technology (BACT) for lime kilns in EPA’s control technology clearinghouse or as an applied emission control in publicly available documents for LNA’s O’Neal facility. The commenter further noted that there is no discussion of SNCR at the O’Neal facility in publicly available documents such as operating permits, quarterly excess emission reports, or emission inventory reports issued by or submitted to the Alabama Department of Environmental Management.

Response: EPA does not dispute Mississippi Lime’s assertion that publicly available information on SNCR technology for lime kilns may be limited. However, any such lack of information is irrelevant to this action. In particular, in a final rule published on September 3, 2014, EPA determined that SNCR is technically feasible and constitutes BART for Kilns 1 and 2 at Nelson Lime Plant.⁸ We have not proposed to reconsider or otherwise revise those determinations.

Comment: Mississippi Lime contended that LNA, according to public documents provided to Illinois EPA, has stated that its O’Neal facility in Calera, Alabama, is controlling lime kiln emissions to meet emission limits under a permit that relies on a proprietary SNCR technology that was patented by its predecessor, Chemical Lime Company.

Response: EPA does not dispute that the SNCR technology in use at the O’Neal facility may be proprietary. EPA relied on an analysis of the effectiveness of the SNCR technology to control emissions at the O’Neal facility to confirm that the emission limit we established for the Nelson Lime Plant is reasonable and appropriate. Based on the results of our analysis described in our proposal, we proposed and are now taking final action to replace a series of prescriptive control technology demonstration requirements with new recordkeeping and reporting requirements for LNA. The fact that the SNCR technology in use at the O’Neal

⁷ Letter from Kimberly S. L. Bauman, Mississippi Lime Company, to Thomas Webb, EPA (February 27, 2015).

⁸ See 79 FR 9318, 9337–9339 for proposed BART analysis and determination (February 18, 2014); 79 FR 52420, 52424 for final BART determination (September 3, 2014).

facility may be proprietary has no bearing on the purpose or substance of our analysis.

Comment: Mississippi Lime asserted that SNCR technology on lime kilns is an unproven control strategy. Thus, the commenter had significant concerns that this technology and the corresponding FIP will be used inappropriately for the establishment of future BACT or BART determinations.

Response: As noted above, EPA has already determined that SNCR is a feasible control technology for Kilns 1 and 2 at the Nelson Lime Plant and has set emission limits that correspond to the use of SNCR in our final rule on the Arizona RH FIP.⁹ Because our proposal and this final action address only the optimization requirements, and are not related to previous determinations in the FIP, this comment on our proposal is not relevant.

Comment: Mississippi Lime is concerned that if LNA's proposed SNCR system for the Nelson Lime Plant uses LNA's proprietary and patented technology, competitors like Mississippi Lime may also be required to use the patented technology in the future. The commenter alleged that LNA could interfere with a competitor's obligation to use SNCR by refusing to license its technology or by requiring exorbitant licensing fees. This would enable LNA to use its patent to gain a competitive advantage over the entire lime industry in the United States.

Response: While not the subject of this final rule, the Arizona RH FIP only requires LNA to meet a specified emission limit. LNA may use whatever technology it wants to achieve the required limit, including proprietary technology. If LNA were to refuse to license its proprietary technology or to charge exorbitant fees at some point in the future, then Mississippi Lime could argue in any future regulatory actions that the technology is not available or is not cost-effective.

IV. Final Action

We are taking final action to revise parts of the Arizona RH FIP that apply to the Nelson Lime Plant. In particular, we are removing the control technology demonstration requirements included in the FIP for Nelson Lime Plant and replacing those with less prescriptive recordkeeping and reporting requirements. For the revised recordkeeping and reporting requirements, LNA must submit a summary of the SNCR design and of the SNCR process improvement activities. In addition, we are correcting a misprint

in the **Federal Register** in a table that lists NO_x and SO₂ emission limits for the kilns at the Nelson Lime Plant. The table appears with the correct labels in the regulatory text that follows this final rule. This rule constitutes EPA's final action on LNA's petition for reconsideration of the Arizona RH FIP.

EPA also is making a final determination that the revisions in this final rule do not interfere with any applicable requirements of the CAA. CAA section 110(l) requires that any revision to an implementation plan shall not be approved by the Administrator if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress or any other applicable requirement of the CAA. These final revisions do not alter the amount or timing of the emission reductions from the Nelson Lime Plant.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review. This rule applies to only one facility and is therefore not a rule of general applicability.

B. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* This rule applies to only one facility. Therefore, its recordkeeping and reporting provisions do not constitute a "collection of information" as defined under 44 U.S.C. 3502(3) and 5 CFR 1320.3(c).

C. Regulatory Flexibility Act (RFA)

I certify that this proposed action will not have a significant economic impact on a substantial number of small entities. This action will not impose any requirements on small entities. Pursuant to 13 CFR 121.201, footnote 1, a firm is small if it is in NAICS 327410 (lime manufacturing) and the concern and its affiliates have no more than 500 employees. LNA is affiliated with the LNA Group, which has more than 5,500 employees.¹⁰ Therefore, LNA is not a small business.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million or

more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175. It will not have substantial direct effects on any Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

EPA interprets EO 13045 as applying only to those regulatory actions that concern health or safety risks that EPA has reason to believe may disproportionately affect children, per the definition of "covered regulatory action" in section 2–202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards. EPA is not revising any technical standards or imposing any new technical standards in this action.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects

⁹ *Id.*

on minority, low-income or indigenous populations. These final revisions do not alter the amount or timing of the emission reductions from the Nelson Lime Plant.

K. Congressional Review Act (CRA)

This rule is exempt from the CRA because it is a rule of particular applicability.

L. Petitions for Judicial Review

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by June 16, 2015. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. See CAA section 307(b)(2). In addition, pursuant to CAA section 307(d)(1)(B), this action is subject to the requirements of CAA section 307(d).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Nitrogen oxides, Particulate matter, Reporting and recordkeeping requirements, Sulfur dioxide, Visibility.

Dated: April 10, 2015.

Gina McCarthy,
Administrator.

Part 52, chapter I, title 40 of the Code of Federal Regulations is amended as follows:

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

■ 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart D—Arizona

- 2. Amend § 52.145 by:
 - a. Revising paragraph (i); and
 - b. Removing Appendix B to § 52.145—Lime Kiln Control Technology Demonstration Requirements.

The revision reads as follows:

§ 52.145 Visibility protection.

* * * * *

(i) *Source-specific federal implementation plan for regional haze at Nelson Lime Plant*— (1) *Applicability.* This paragraph (i) applies to the owner/

operator of the lime kilns designated as Kiln 1 and Kiln 2 at the Nelson Lime Plant located in Yavapai County, Arizona.

(2) *Definitions.* Terms not defined in this paragraph (i)(2) shall have the meaning given them in the Clean Air Act or EPA's regulations implementing the Clean Air Act. For purposes of this paragraph (i):

Ammonia injection shall include any of the following: Anhydrous ammonia, aqueous ammonia, or urea injection.

Continuous emission monitoring system or CEMS means the equipment required by this section to sample, analyze, measure, and provide, by means of readings recorded at least once every 15 minutes (using an automated data acquisition and handling system (DAHS)), a permanent record of NO_x emissions, SO₂ emissions, diluent, and stack gas volumetric flow rate.

Kiln means either of the kilns identified in paragraph (i)(1) of this section.

Kiln 1 means lime kiln 1, as identified in paragraph (i)(1) of this section.

Kiln 2 means lime kiln 2, as identified in paragraph (i)(1) of this section.

Kiln operating day means a 24-hour period between 12 midnight and the following midnight during which there is operation of Kiln 1, Kiln 2, or both kilns at any time.

Kiln operation means any period when any raw materials are fed into the Kiln or any period when any combustion is occurring or fuel is being fired in the Kiln.

Lime product means the product of the lime-kiln calcination process, including calcitic lime, dolomitic lime, and dead-burned dolomite.

NO_x means oxides of nitrogen.

Owner/operator means any person who owns or who operates, controls, or supervises a kiln identified in paragraph (i)(1) of this section.

SO₂ means sulfur dioxide.

(3) *Emission limitations.* (i) The owner/operator of the kilns identified in paragraph (i)(1) of this section shall not emit or cause to be emitted pollutants in excess of the following limitations in pounds of pollutant per ton of lime product (lb/ton), from any kiln. Each emission limit shall be based on a 12-month rolling basis.

POLLUTANT EMISSION LIMIT		
Kiln ID	NO _x	SO ₂
Kiln 1	3.80	9.32
Kiln 2	2.61	9.73

(ii) The owner/operator of the kilns identified in paragraph (i)(1) of this

section shall not emit or cause to be emitted pollutants in excess of 3.27 tons of NO_x per day and 10.10 tons of SO₂ per day, combined from both kilns, based on a rolling 30-kiln-operating-day basis.

(4) *Compliance dates.* (i) The owner/operator of each kiln shall comply with the NO_x emission limitations and other NO_x -related requirements of this paragraph (i) no later than September 4, 2017.

(ii) The owner/operator of each kiln shall comply with the SO₂ emission limitations and other SO₂ -related requirements of this paragraph (i) no later than March 3, 2016.

(5) [Reserved]

(6) *Compliance determination*—(i) *Continuous emission monitoring system.* At all times after the compliance dates specified in paragraph (i)(4) of this section, the owner/operator of kilns 1 and 2 shall maintain, calibrate, and operate a CEMS, in full compliance with the requirements found at 40 CFR 60.13 and 40 CFR part 60, appendices B and F, to accurately measure diluent, stack gas volumetric flow rate, and concentration by volume of NO_x and SO₂ emissions into the atmosphere from kilns 1 and 2. The CEMS shall be used by the owner/operator to determine compliance with the emission limitations in paragraph (i)(3) of this section, in combination with data on actual lime production. The owner/operator must operate the monitoring system and collect data at all required intervals at all times that an affected kiln is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments).

(ii) *Ammonia consumption monitoring.* Upon and after the completion of installation of ammonia injection on a kiln, the owner or operator shall install, and thereafter maintain and operate, instrumentation to continuously monitor and record levels of ammonia consumption for that kiln.

(iii) *Compliance determination for lb per ton NO_x limit.* Compliance with the NO_x emission limits described in paragraph (i)(3)(i) of this section shall be determined based on a rolling 12-month basis. The 12-month rolling NO_x emission rate for each kiln shall be calculated within 30 days following the end of each calendar month in accordance with the following procedure: Step one, sum the hourly pounds of NO_x emitted for the month

just completed and the eleven (11) months preceding the month just completed to calculate the total pounds of NO_x emitted over the most recent twelve (12) month period for that kiln; Step two, sum the total lime product, in tons, produced during the month just completed and the eleven (11) months preceding the month just completed to calculate the total lime product produced over the most recent twelve (12) month period for that kiln; Step three, divide the total amount of NO_x calculated from Step one by the total lime product calculated from Step two to calculate the 12-month rolling NO_x emission rate for that kiln. Each 12-month rolling NO_x emission rate shall include all emissions and all lime product that occur during all periods within the 12-month period, including emissions from startup, shutdown, and malfunction.

(iv) *Compliance determination for lb per ton SO₂ limit.* Compliance with the SO₂ emission limits described in paragraph (i)(3)(i) of this section shall be determined based on a rolling 12-month basis. The 12-month rolling SO₂ emission rate for each kiln shall be calculated within 30 days following the end of each calendar month in accordance with the following procedure: Step one, sum the hourly pounds of SO₂ emitted for the month just completed and the eleven (11) months preceding the month just completed to calculate the total pounds of SO₂ emitted over the most recent twelve (12) month period for that kiln; Step two, sum the total lime product, in tons, produced during the month just completed and the eleven (11) months preceding the month just completed to calculate the total lime product produced over the most recent twelve (12) month period for that kiln; Step three, divide the total amount of SO₂ calculated from Step one by the total lime product calculated from Step two to calculate the 12-month rolling SO₂ emission rate for that kiln. Each 12-month rolling SO₂ emission rate shall include all emissions and all lime product that occur during all periods within the 12-month period, including emissions from startup, shutdown, and malfunction.

(v) *Compliance determination for ton per day NO_x limit.* Compliance with the NO_x emission limit described in paragraph (i)(3)(ii) of this section shall be determined based on a rolling 30-kiln-operating-day basis. The rolling 30-kiln operating day NO_x emission rate for the kilns shall be calculated for each kiln operating day in accordance with the following procedure: Step one, sum the hourly pounds of NO_x emitted from

both kilns for the current kiln operating day and the preceding twenty-nine (29) kiln-operating-day period for both kilns; Step two, divide the total pounds of NO_x calculated from Step one by two thousand (2,000) to calculate the total tons of NO_x; Step three, divide the total tons of NO_x calculated from Step two by thirty (30) to calculate the rolling 30-kiln operating day NO_x emission rate for both kilns. Each rolling 30-kiln operating day NO_x emission rate shall include all emissions that occur from both kilns during all periods within any kiln operating day, including emissions from startup, shutdown, and malfunction.

(vi) *Compliance determination for ton per day SO₂ limit.* Compliance with the SO₂ emission limit described in paragraph (i)(3)(ii) of this section shall be determined based on a rolling 30-kiln-operating-day basis. The rolling 30-kiln operating day SO₂ emission rate for the kilns shall be calculated for each kiln operating day in accordance with the following procedure: Step one, sum the hourly pounds of SO₂ emitted from both kilns for the current kiln operating day and the preceding twenty-nine (29) kiln operating days, to calculate the total pounds of SO₂ emitted over the most recent thirty (30) kiln operating day period for both kilns; Step two, divide the total pounds of SO₂ calculated from Step one by two thousand (2,000) to calculate the total tons of SO₂; Step three, divide the total tons of SO₂ calculated from Step two by thirty (30) to calculate the rolling 30-kiln operating day SO₂ emission rate for both kilns. Each rolling 30-kiln operating day SO₂ emission rate shall include all emissions that occur from both kilns during all periods within any kiln operating day, including emissions from startup, shutdown, and malfunction.

(7) *Recordkeeping.* The owner/operator shall maintain the following records for at least five years:

(i) All CEMS data, including the date, place, and time of sampling or measurement; parameters sampled or measured; and results.

(ii) All records of lime production.

(iii) Monthly rolling 12-month emission rates of NO_x and SO₂, calculated in accordance with paragraphs (i)(6)(iii) and (iv) of this section.

(iv) Daily rolling 30-kiln operating day emission rates of NO_x and SO₂ calculated in accordance with paragraphs (i)(6)(v) and (vi) of this section.

(v) Records of quality assurance and quality control activities for emissions measuring systems including, but not

limited to, any records specified by 40 CFR part 60, appendix F, Procedure 1, as well as the following:

(A) The occurrence and duration of any startup, shutdown, or malfunction, performance testing, evaluations, calibrations, checks, adjustments maintenance, duration of any periods during which a CEMS or COMS is inoperative, and corresponding emission measurements.

(B) Date, place, and time of measurement or monitoring equipment maintenance activity;

(C) Operating conditions at the time of measurement or monitoring equipment maintenance activity;

(D) Date, place, name of company or entity that performed the measurement or monitoring equipment maintenance activity and the methods used; and

(E) Results of the measurement or monitoring equipment maintenance.

(vi) Records of ammonia consumption, as recorded by the instrumentation required in paragraph (i)(6)(ii) of this section.

(vii) Records of all major maintenance activities conducted on emission units, air pollution control equipment, CEMS, and lime production measurement devices.

(viii) All other records specified by 40 CFR part 60, appendix F, Procedure 1.

(8) *Reporting.* All reports required under this section shall be submitted by the owner/operator to the Director, Enforcement Division, U.S. Environmental Protection Agency, Region 9, electronically via email to aeo_r9@epa.gov. Any data that are required under this section shall be submitted in Excel format. Reports required under paragraphs (i)(8)(iii) through (v) of this section shall be submitted within 30 days after the applicable compliance date(s) in paragraph (i)(4) of this section and at least semiannually thereafter, within 30 days after the end of a semiannual period. The owner/operator may submit reports more frequently than semiannually for the purposes of synchronizing reports required under this section with other reporting requirements, such as the title V monitoring report required by 40 CFR 70.6(a)(3)(iii)(A), but at no point shall the duration of a semiannual period exceed six months.

(i) Prior to commencing construction of the ammonia injection system, the owner/operator shall submit to EPA a summary report of the design of the SNCR system. Elements of this summary report shall include: Reagent type, description of the locations selected for reagent injection, reagent injection rate (expressed as a molar ratio of reagent to

NO_x), equipment list, equipment arrangement, and a summary of kiln characteristics that were relied upon as the design basis for the SNCR system.

(ii) By October 3, 2017, the owner/operator shall submit to EPA a summary of any process improvement or debugging activities that were performed on the SNCR system.

Elements of this summary report shall include: a description of each process adjustment performed on the SNCR system, a discussion of whether the adjustment affected NO_x emission rate (including CEMS data that may have been recorded while the adjustment was in progress), a description of the range (if applicable) over which the adjustment was examined, and a discussion of how the adjustment will be reflected or accounted for in kiln operating practices. In addition, to the extent that the owner/operator evaluates the impact of varying reagent injection rate on NO_x emissions, the owner/operator shall include the following information: the range of reagent injection rates evaluated (expressed as a molar ratio of reagent to average NO_x concentration), reagent injection rate, average NO_x concentration, lime production rate, kiln flue gas temperature, and the presence of any detached plumes from the kiln exhaust.

(iii) The owner/operator shall submit a report that lists the daily rolling 30-kiln operating day emission rates for NO_x and SO₂, calculated in accordance with paragraphs (i)(6)(iii) and (iv) of this section.

(iv) The owner/operator shall submit a report that lists the monthly rolling 12-month emission rates for NO_x and SO₂, calculated in accordance with paragraphs (i)(6)(v) and (vi) of this section.

(v) The owner/operator shall submit excess emissions reports for NO_x and SO₂ limits. Excess emissions means emissions that exceed any of the emissions limits specified in paragraph (i)(3) of this section. The reports shall include the magnitude, date(s), and duration of each period of excess emissions; specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the kiln; the nature and cause of any malfunction (if known); and the corrective action taken or preventative measures adopted.

(vi) The owner/operator shall submit a summary of CEMS operation, to include dates and duration of each period during which the CEMS was inoperative (except for zero and span adjustments and calibration checks), reason(s) why the CEMS was inoperative and steps taken to prevent

recurrence, and any CEMS repairs or adjustments.

(vii) The owner/operator shall submit results of all CEMS performance tests required by 40 CFR part 60, Appendix F, Procedure 1 (Relative Accuracy Test Audits, Relative Accuracy Audits, and Cylinder Gas Audits).

(viii) When no excess emissions have occurred or the CEMS has not been inoperative, repaired, or adjusted during the reporting period, the owner/operator shall state such information in the semiannual report.

(9) *Notifications.* All notifications required under this section shall be submitted by the owner/operator to the Director, Enforcement Division (Mail Code ENF-2-1), U.S. Environmental Protection Agency, Region 9, 75 Hawthorne Street, San Francisco, California 94105-3901.

(i) The owner/operator shall submit notification of commencement of construction of any equipment which is being constructed to comply with the NO_x emission limits in paragraph (i)(3) of this section.

(ii) The owner/operator shall submit semiannual progress reports on construction of any such equipment.

(iii) The owner/operator shall submit notification of initial startup of any such equipment.

(10) *Equipment operations.* (i) At all times, including periods of startup, shutdown, and malfunction, the owner/operator shall, to the extent practicable, maintain and operate the kilns, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions. Pollution control equipment shall be designed and capable of operating properly to minimize emissions during all expected operating conditions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Regional Administrator, which may include, but is not limited to, monitoring results, review of operating and maintenance procedures, and inspection of the kilns.

(ii) After completion of installation of ammonia injection on a kiln, the owner/operator shall inject sufficient ammonia to achieve compliance with the NO_x emission limits from paragraph (i)(3) of this section for that kiln while preventing excessive ammonia emissions.

(11) *Enforcement.* Notwithstanding any other provision in this implementation plan, any credible evidence or information relevant as to whether the kiln would have been in compliance with applicable

requirements if the appropriate performance or compliance test had been performed can be used to establish whether or not the owner/operator has violated or is in violation of any standard or applicable emission limit in the plan.

[FR Doc. 2015-08883 Filed 4-16-15; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R10-OAR-2013-0581; FRL-9926-52-Region 10]

Approval and Promulgation of Implementation Plans; Idaho: Interstate Transport of Fine Particulate Matter

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: On June 28, 2010, the State of Idaho submitted a State Implementation Plan (SIP) revision to the Environmental Protection Agency (EPA) to address certain interstate transport requirements of the Clean Air Act (CAA). The EPA finds that the Idaho SIP meets the CAA interstate transport requirements that the SIP contain adequate provisions prohibiting air emissions that will contribute significantly to nonattainment or interfere with maintenance of the 2006 24-hour PM_{2.5} NAAQS in any other state.

DATES: This final rule is effective on May 18, 2015.

ADDRESSES: The EPA has established a docket for this action under Docket Identification No. EPA-R10-OAR-2013-0581. All documents in the docket are listed on the <http://www.regulations.gov> Web site. Although listed in the index, some information may not be publicly available, *i.e.*, Confidential Business Information or other information the disclosure of which is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through <http://www.regulations.gov> or in hard copy at EPA Region 10, Office of Air, Waste, and Toxics, AWT-150, 1200 Sixth Avenue, Seattle, Washington 98101. The EPA requests that you contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. The Regional Office's official hours of business are

Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding Federal holidays.

FOR FURTHER INFORMATION CONTACT:

Kristin Hall at (206) 553-6357, hall.kristin@epa.gov, or by using the above EPA, Region 10 address.

SUPPLEMENTARY INFORMATION:

Throughout this document wherever “we,” “us” or “our” is used, it is intended to refer to the EPA.

Table of Contents

- I. Background
- II. Final Action
- III. Statutory and Executive Order Reviews

I. Background

In a notice of proposed rulemaking published on February 23, 2015 (80 FR 9423), the EPA proposed to find that the Idaho SIP adequately addressed the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) for the 2006 24-hour PM_{2.5} NAAQS. Please see our February 23, 2015, proposed rulemaking for further explanation and the basis for our finding. The public comment period for the proposed rule ended on March 25, 2015. No comments were received on the proposal.

II. Final Action

The EPA finds that the Idaho SIP meets the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) for the 2006 24-hour PM_{2.5} NAAQS. This action is being taken under section 110 of the CAA.

III. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA’s role is to approve State choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves State law as meeting Federal requirements and does not impose additional requirements beyond those imposed by State law. For that reason, this action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735,

October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);

- does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4);
- does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because this action does not involve technical standards; and
- does not provide the EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where the EPA or an Indian Tribe has demonstrated that a Tribe has jurisdiction. In those areas of Indian country, the rule does not have Tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will

submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a “major rule” as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by June 16, 2015. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (*See* section 307(b)(2)).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Particulate matter, Reporting and recordkeeping requirements.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: April 6, 2015.

Michelle L. Pirzadeh,

Acting Regional Administrator, Region 10.

40 CFR part 52 is amended as follows:

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

- 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart N—Idaho

- 2. In § 52.670, the table in paragraph (e) is amended by adding an entry at the end of the table for “Interstate Transport Requirements for the 2006 24-hour PM_{2.5} NAAQS” to read as follows:

§ 52.670 Identification of plan.

*	*	*	*	*
(e)	*	*	*	

EPA-APPROVED IDAHO NONREGULATORY PROVISIONS AND QUASI-REGULATORY MEASURES

Name of SIP provision	Applicable geographic or non-attainment area	State submittal date	EPA Approval date	Comments
Interstate Transport Requirements for the 2006 24-hour PM _{2.5} NAAQS.	State-wide	6/28/2010	4/17/2015 [Insert Federal Register citation].	This action addresses the following CAA elements: 110(a)(2)(D)(i)(I).

[FR Doc. 2015-08893 Filed 4-16-15; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Part 52**

[EPA-R05-OAR-2014-0188; FRL-9926-31-Region 5]

Approval and Promulgation of Air Quality Implementation Plans; Michigan; SO₂ Rules**AGENCY:** Environmental Protection Agency.**ACTION:** Direct final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving a request by the Michigan Department of Environmental Quality (MDEQ) submitted on February 14, 2014, and supplemented on October 27, 2014, to revise the Michigan state implementation plan (SIP) to incorporate sulfur dioxide (SO₂) limits found in Michigan's Air Pollution Control Rules at Chapter 336, Part 4, "Emissions Limitations and Prohibitions—Sulfur Bearing Compounds." EPA will take no action on the provisions pertaining to the Federal Clean Air Interstate Rule (CAIR) SO₂ trading program because CAIR is no longer in effect.

DATES: This direct final rule will be effective June 16, 2015, unless EPA receives adverse comments by May 18, 2015. If adverse comments are received, EPA will publish a timely withdrawal of the direct final rule in the **Federal Register** informing the public that the rule will not take effect.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R05-OAR-2014-0188, by one of the following methods:

1. *www.regulations.gov*: Follow the on-line instructions for submitting comments.

2. *Email*: blakley.pamela@epa.gov.

3. *Fax*: (312) 692-2450.

4. *Mail*: Pamela Blakley, Chief, Control Strategies Section, Air Programs Branch (AR-18J), U.S. Environmental

Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604.

5. *Hand Delivery*: Pamela Blakley, Chief, Control Strategies Section, Air Programs Branch (AR-18J), U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604. Such deliveries are only accepted during the Regional Office normal hours of operation, and special arrangements should be made for deliveries of boxed information. The Regional Office official hours of business are Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding Federal holidays.

Instructions: Direct your comments to Docket ID No. EPA-R05-OAR-2014-0188. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *www.regulations.gov*, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *www.regulations.gov* or email. The *www.regulations.gov* Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to EPA without going through *www.regulations.gov* your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the docket are listed in the *www.regulations.gov* index. Although listed in the index, some information is not publicly available, e.g. CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in *www.regulations.gov* or in hard copy at the Environmental Protection Agency, Region 5, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. This facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding Federal holidays. We recommend that you telephone Charles Hatten, Environmental Engineer, (312) 886-6031 before visiting the Region 5 office.

FOR FURTHER INFORMATION CONTACT:

Charles Hatten, Environmental Engineer, Control Strategies Section, Air Programs Branch (AR-18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 886-6031, hatten.charles@epa.gov.

SUPPLEMENTARY INFORMATION:

Throughout this document whenever "we," "us," or "our" is used, we mean EPA. This supplementary information section is arranged as follows:

- I. What is the background for this action?
- II. What did Michigan submit?
- III. What action is EPA taking?
- IV. Incorporation by Reference
- V. Statutory and Executive Orders Reviews

I. What is the background for this action?

On February 14, 2014, and October 27, 2014, MDEQ submitted a request to incorporate revisions to the Part 4 rule in Michigan's SO₂ SIP. Specifically, the revisions to the Part 4 rule includes the removal of obsolete rule language, added definitions, and the consolidation of certain provisions for sources located in Wayne County.

MDEQ published a Notice of Public Information in several newspapers and provided a 30-day public comment period on September 30, 2012, October

1, 2012, and December 2, 2013, respectively. No public comments were received.

On May 31, 1972 (37 FR 10873), EPA approved the Part 4 sulfur limits into the Michigan SIP. The sulfur limits apply statewide, and reduce emissions of SO₂ from the following sources: (1) Fuel burning equipment at power plants, (2) fuel burning equipment at a stationary source other than power plants, (3) oil and natural gas producing or transportation facilities and natural gas processing facilities, and (4) sulfuric acid plants. In the same action, EPA approved the Wayne County Air Quality Management Division (WCAQMD) Ordinance—Air Pollution Control (APC) regulation for SO₂, “Article VI, Section 6.3, Emissions Limitations and Prohibitions—Sulfur Bearing Compounds” rule, thereby incorporating additional sulfur limits for Wayne County sources into the Michigan SIP. The WCAQMD APC regulation is more stringent than the state’s Part 4 rule because it includes requirements to control sulfur bearing compound emissions from sulfuric acid plants, sulfur recovery plants, and hydrogen sulfide facilities. This rule became effective in Wayne County on July 23, 1965.

On May 6, 1980 (45 FR 29790), EPA approved specific portions of the state of Michigan’s April 25, 1979, SIP submittal, to satisfy the requirements of part D of the Clean Air Act (CAA) for SO₂. In the same action, EPA approved minor revisions to the SO₂ regulations in the WCAQMD Ordinance (1969) to adjust sulfur limits for burning fuel oil.

In September 2001, the Wayne County Department of Public Health closed the WCAQMD and ended its air pollution program. As a result of this action, Wayne County’s air pollution control ordinance was repealed. Although WCAQMD no longer operates as the air pollution control agency for Wayne County, the SO₂ regulations established for sources located in Wayne County remained part of the Federally-approved SIP for Michigan.

II. What did Michigan submit?

MDEQ made revisions to the Part 4 rule with the intent to improve rule clarity. MDEQ has requested that we act on the following revisions to Part 4:

R336.1401a (Rule 401a), Definitions

MDEQ determined that adding definitions for three terms would clarify the language in Part 4. Rule 401a includes definitions for the following terms: (a) Power plant, (b) sulfur recovery plant, and (c) used oil.

The term “power plant” means a single structure devoted to steam or electric generation, or both, and may contain multiple boilers.

A “sulfur recovery plant” is any plant that recovers elemental sulfur from any gas stream.

The term “used oil” means any fuel that is produced from used oil, as defined in R 299.9109(p). To allow incorporation by reference of the definition contained in R 299.9109(p) into the new definition of “used oil,” MDEQ requested in an October 27, 2014, supplement to its submission that EPA approve R 299.9109(p) into the Michigan SIP. Rule R 299.9109(p), in the Hazardous Waste Management regulations of Michigan’s Administrative Code, states, “used oil means any oil which has been refined from crude oil, or any synthetic oil, which has been used and which as a result of the use, is contaminated by physical or chemical impurities.” EPA finds that inclusion of the definition of used oil at R 299.9109(p) is consistent with the Federal used oil regulation in 40 CFR part 279 (subpart A, Definitions). Rule 299.9109(p) became effective in Michigan on September 11, 2000.

EPA finds these revisions acceptable for approval into the Michigan SIP.

R336.1401 (Rule 401); “Emission Sulfur Dioxide From Power Plants”

The existing rule 401 addressed SO₂ emissions from power plants. Table 41 and Table 42, respectively, contain percent sulfur-in-fuel and equivalent SO₂ concentration limits. To streamline the structure of rule 401, MDEQ combined the equivalent SO₂ concentration limits in Table 42 with the percent sulfur-in-fuel limits in Table 41, and thus, developed a “new” Table 41—“Fuel and SO₂ Emission Limitations for Power Plants.” This change did not revise the existing emission limits for SO₂.

Subsections (1a) and (2) through (7) of the existing rule 401 included interim requirements which allowed existing sources an extension of time, until January 1, 1980, for compliance. The state has requested removal of the obsolete rule language.

To improve clarity, MDEQ added a “new” Table 42 into rule 401 applicable to power plants located in Wayne County. MDEQ did not revise any of the sulfur limits applicable to sources in Wayne County in this SIP revision. Lastly, the revisions to rule 401 add requirements for power plants in Wayne County that burn used oil. The requirements for burning used oil at power plants provide a percent sulfur-

in-fuel and equivalent SO₂ concentration limits. Rule 401 limits the maximum sulfur content for burning used oil to one percent, and the equivalent SO₂ concentration limit is 300 parts per million by volume (ppmv). The SO₂ concentration limit of 300 ppmv, by comparison, is more stringent than the existing SIP limit of 400 ppmv for power plants in Wayne County burning crude and heavy fuel oils.

EPA finds the revisions acceptable for approval into Michigan’s SIP.

R336.1402 (Rule 402), Emissions Limitation of SO₂ From Fuel-burning Equipment at Stationary Sources Other Than Power Plants

The existing SIP contains emission limitations and prohibitions on emitting SO₂ from fuel-burning equipment at stationary sources other than power plants. MDEQ’s submission will move the fuel and SO₂ concentration limitations applicable only to fuel-burning equipment at stationary sources located in Wayne County, other than power plants, into rule 402. MDEQ also amended rule 402, adding sub-rules 402(3)—402(5). These sub-rules address the applicability determination, sulfur-in-fuel content and equivalent SO₂ concentration limitations, and recordkeeping and reporting requirements for fuel-burning equipment at Wayne County stationary sources other than power plants.

MDEQ did not revise any of the requirements that apply to fuel-burning equipment at stationary sources located in Wayne County, other than power plants, in this SIP revision. EPA finds these revisions acceptable for approval into Michigan’s SIP.

R336.1404 (rule 404), Emission Limitation of SO₂ and Sulfuric Acid Mist From Sulfuric Acid Plants

The existing SIP addresses emission of sulfur bearing compounds from sulfuric acid plants.

Similar to rules 401 and 402, MDEQ amended rule 404 by incorporating the sulfur limit applicable to sulfuric acid plants located in Wayne County into rule 404. Thus, any sulfuric acid plants located in Wayne County must continue to comply with the SO₂ concentration emission limitation of 6.5 pounds of acid produced.

MDEQ did not revise any of the requirements that apply to sulfuric acid plants located in Wayne County in this SIP revision. EPA finds these revisions acceptable for approval into Michigan’s SIP.

R336.1405 (Rule 405), R336.1406 (Rule 406), and R336.1407 (Rule 407)

MDEQ amended Part 4 by adding rules 405, 406, and 407 to address emission of sulfur compounds from certain types of facilities or operations at a stationary source located within Wayne County. Rule 405 specifies various sulfur compound emission limits applicable sulfur recovery plants. Rule 406 contains prohibitions on hydrogen sulfide emissions from sources located in Wayne County. Rule 407 contains sulfur compound limits that apply to any process and fuel burning equipment at Wayne County stationary sources not otherwise addressed in Part 4.

MDEQ did not revise any of the sulfur limits that apply to plants located in Wayne County. The revisions to Part 4 centrally locates all the sulfur limits approved in the Michigan SIP in one place. The revisions also expand the applicability of the rule to restrict the emission of SO₂ from fuel-burning equipment.

EPA is approving Michigan's Part 4 SIP revision as it relates to Rule 401a, Rule 401, Rule 402, Rule 404, Rule 405, Rule 406, and Rule 407. However, EPA is taking no action, at this time, on MDEQ's revision to R 336.1420 (Rule 420), pertaining to the Federal CAIR SO₂ trading program which is no longer in effect. The portion of the SIP revision submission that relates to CAIR is severable, and does not affect the stringency of the remainder of the SIP submission which EPA is approving into the Michigan SIP.

III. What action is EPA taking?

EPA is approving Michigan's February 14, 2014, and October 27, 2014, requests to revise Michigan's SIP revision to incorporate SO₂ limits found in Michigan's Air Pollution Control Rules at Chapter 336, Part 4, "Emissions Limitations and Prohibitions—Sulfur Bearing Compounds." EPA is approving this rule for administrative and SIP strengthening purposes. EPA will take no action on the provisions pertaining to the Federal Clean Air Interstate Rule (CAIR) SO₂ trading program because CAIR is no longer in effect. EPA is also approving Michigan rule 299.9109, which defines the term "used oil" into Michigan's SIP.

The revision provides clarity to the Part 4 rule by adding definitions, removing obsolete language, and streamlining the structure of the rule by consolidating into Part 4 provisions relating to sources located in Wayne County. EPA also is approving MDEQ's SIP revision that removes obsolete

language referring to the WCAQMD Ordinance (1969) from the Michigan SIP.

It should be noted that EPA is not taking action in this document to address compliance with the 2010 national ambient air quality standard for SO₂. SIPs addressing current nonattainment areas in the state for the 2010 SO₂ standard are due April 4, 2015, and will be addressed in a separate rulemaking.

We are publishing this action without prior proposal because we view this as a noncontroversial amendment and anticipate no adverse comments. However, in the proposed rules section of this **Federal Register** publication, we are publishing a separate document that will serve as the proposal to approve the state plan in part if relevant adverse written comments are filed. This rule will be effective June 16, 2015 without further notice unless we receive relevant adverse written comments by May 18, 2015. If we receive such comments, we will withdraw this action before the effective date by publishing a subsequent document that will withdraw the final action. We then will address all public comments in a subsequent final rule based on the proposed action. The EPA will not institute a second comment period. Any parties interested in commenting on this action should do so at this time. Please note that if EPA receives adverse comment on an amendment, paragraph, or section of this rule and if that provision can be severed from the remainder of the rule, EPA may adopt as final those provisions of the rule that are not the subject of an adverse comment. If we do not receive any comments, this action will be effective June 16, 2015.

IV. Incorporation by Reference

In this rule, EPA is finalizing regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, EPA is finalizing the incorporation by reference of the Michigan regulations described in the amendments to 40 CFR part 52 set forth below. The EPA has made, and will continue to make, these documents generally available electronically through www.regulations.gov and/or in hard copy at the appropriate EPA office (see the **ADDRESSES** section of this preamble for more information).

V. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the

CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);

- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);

- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);

- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4);

- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);

- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);

- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);

- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and

- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement

Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a “major rule” as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by June 16, 2015. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and

shall not postpone the effectiveness of such rule or action. Parties with objections to this direct final rule are encouraged to file a comment in response to the parallel notice of proposed rulemaking for this action published in the proposed rules section of this **Federal Register**, rather than file an immediate petition for judicial review of this direct final rule, so that EPA can withdraw this direct final rule and address the comment in the proposed rulemaking. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2)).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements, Sulfur oxides.

Dated: April 2, 2015.

Susan Hedman,
Regional Administrator, Region 5.

Therefore, 40 CFR part 52 is amended as follows:

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

■ 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

■ 2. In § 52.1170, in the table in paragraph (c):

■ a. Add at the beginning of the table the heading “Hazardous Waste Management”, and under the new heading add an entry for “R 299.9109(p)”.

■ b. Revise the entries under the heading “Part 4. Emission Limitations and Prohibitions—Sulfur-Bearing Compounds”.

■ c. Revise the entry for “Wayne County Air Pollution Control Regulations”.

■ d. Remove the entry for “Wayne County variance”.

The revisions and additions read as follows:

§ 52.1170 Identification of plan.

* * * * *
(c) * * *

EPA-APPROVED MICHIGAN REGULATIONS

Michigan citation	Title	State effective date	EPA Approval date	Comments
Hazardous Waste Management				
R 299.9109(p)	Used oil	9/11/00	4/17/15, [insert Federal Register citation].	
*	*	*	*	*
Part 4. Emission Limitations and Prohibitions—Sulfur-Bearing Compounds				
R 336.1401	Emissions of sulfur dioxide from power plants.	3/11/13	4/17/15, [insert Federal Register citation].	
R 336.1401a	Definitions	3/11/13	4/17/15, [insert Federal Register citation].	
R 336.1402	Emission of SO ₂ from fuel-burning sources other than power plants.	3/11/13	4/17/15, [insert Federal Register citation].	
R 336.1403	Oil- and natural gas-producing or transporting facilities and natural gas-processing facilities; emissions; operation.	3/19/02	4/17/15, [insert Federal Register citation].	
R 336.1404	Emissions of SO ₂ and sulfuric acid mist from sulfuric acid plants.	3/11/13	4/17/15, [insert Federal Register citation].	
R 336.1405	Emissions from sulfur recovery plants located within Wayne county.	3/11/13	4/17/15, [insert Federal Register citation].	
R 336.1406	Hydrogen sulfide emissions from facilities located within Wayne county.	3/11/13	4/17/15, [insert Federal Register citation].	
R 336.1407	Sulfur compound emissions from sources located within Wayne county and not previously specified.	3/11/13	4/17/15, [insert Federal Register citation].	

EPA-APPROVED MICHIGAN REGULATIONS—Continued

Michigan citation	Title	State effective date	EPA Approval date	Comments
*	*	*	*	*
Local Regulations				
*	*	*	*	*
Wayne County Air Pollution Control Regulations.	Wayne County Air Pollution Control Regulations.	3/20/69	4/17/15, [insert Federal Register citation].	All except for Section 6.3 (A–H)
*	*	*	*	*

* * * * *
 [FR Doc. 2015–08888 Filed 4–16–15; 8:45 am]
BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 180

[EPA–HQ–OPP–2005–0162; FRL–9925–70]

Carbofuran; Reinstatement of Specific Tolerances and Removal of Expired Tolerances

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; Order reestablishing and amending tolerances.

SUMMARY: EPA is amending its regulations to reinstate four import tolerances for carbofuran, in order to comply with a DC Circuit decision and order vacating the Agency's revocation of those tolerances. EPA is also removing several carbofuran time-limited tolerances that have already expired. Because this action is being taken to conform the regulations to the court's order and to accurately reflect the current legal status of these tolerances, EPA is issuing this as a final order that is effective upon publication.

DATES: Effective April 17, 2015.

ADDRESSES: The docket for this action, identified by docket identification (ID) number EPA–HQ–OPP–2005–0162, is available at <http://www.regulations.gov> or at the Office of Pesticide Programs Regulatory Public Docket (OPP Docket) in the Environmental Protection Agency Docket Center (EPA/DC), West William Jefferson Clinton Bldg., Rm. 3334, 1301 Constitution Ave. NW., Washington, DC 20460–0001. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744,

and the telephone number for the OPP Docket is (703) 305–5805. Please review the visitor instructions and additional information about the docket available at <http://www.epa.gov/dockets>.

FOR FURTHER INFORMATION CONTACT:

Joseph Nevola, Pesticide Re-Evaluation Division (7508P), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460–0001; telephone number: (703) 308–8037; email address: nevola.joseph@epa.gov.

SUPPLEMENTARY INFORMATION:

I. Does this action apply to me?

You may be potentially affected by this action if you are an agricultural producer, food manufacturer, or pesticide manufacturer. The following list of North American Industrial Classification System (NAICS) codes is not intended to be exhaustive, but rather provides a guide to help readers determine whether this document applies to them. Potentially affected entities may include:

- Crop production (NAICS code 111).
- Animal production (NAICS code 112).
- Food manufacturing (NAICS code 311).
- Pesticide manufacturing (NAICS code 32532).

II. What is the Agency's authority for taking this action?

EPA is taking this action pursuant to the authority in section 408(g)(2)(C) of the Federal Food, Drug, and Cosmetic Act (FFDCA), 21 U.S.C. 346a(g)(2)(C).

III. What action is the Agency taking?

EPA is revising the tolerance regulations in title 40 of the Code of Federal Regulations (CFR) part 180 to reflect the reinstatement of four import tolerances for carbofuran, in compliance with a decision and order from the D.C.

Circuit in *National Corn Growers Association v. EPA*, 613 F.3d 266 (D.C. Cir. 2010). EPA is also amending 40 CFR part 180 to delete the listings of other carbofuran tolerances that have expired, and thus are no longer valid.

IV. Why is EPA taking this action?

In the **Federal Register** of July 31, 2008 (73 FR 44864) (FRL–8373–8), EPA proposed to revoke all carbofuran tolerances and provided a 60-day public comment period. The revocations were based on an Agency determination that the risk from aggregate exposure from the use of carbofuran did not meet the safety standard of FFDCA section 408(b)(2). In the **Federal Register** of May 15, 2009 (74 FR 23046) (FRL–8413–3), EPA finalized the revocation of all of the carbofuran tolerances, effective December 31, 2009. During the objection period, the carbofuran registrant, FMC Corporation, and three grower associations (National Corn Growers Association, National Sunflower Association, and National Potato Council) submitted objections to EPA's tolerance revocations and requested an administrative hearing. EPA concluded that the regulatory standard for holding an evidentiary hearing had not been met and issued an order in the **Federal Register** of November 18, 2009 (74 FR 59608) (FRL–8797–6), which denied the objections and requests for hearing and included the Agency's reasons.

FMC Corporation, in conjunction with the three grower associations, challenged EPA's decision in the Court of Appeals for the D.C. Circuit. The court upheld EPA's revocation of all carbofuran domestic tolerances and denial of the hearing requests, but vacated EPA's revocation of the four import tolerances (bananas, coffee, rice, and sugarcane). The Court of Appeals for the D.C. Circuit also denied the subsequent petition filed by FMC and

the three grower associations for rehearing and rehearing en banc. The petitioners appealed this decision to the Supreme Court. On May 31, 2011, the Supreme Court declined to hear the request by FMC and the three grower associations to review EPA's 2009 decision to revoke all domestic tolerances for carbofuran, ending these legal challenges. For more information, see http://www.epa.gov/oppsrrd1/reregistration/carbofuran/carbofuran_noic.htm.

Because the D.C. Circuit vacated EPA's revocation of the four import tolerances for carbofuran, they are in fact, currently in effect. EPA is revising the CFR to accurately reflect the current legal status of the four import tolerances by removing the expiration dates in their listings in 40 CFR 180.254(a). Specifically, EPA is removing the expiration date of December 31, 2009 associated with the carbofuran tolerances in 40 CFR 180.254(a) on banana; coffee, bean, green; rice, grain; and sugarcane, cane.

Also, to eliminate potential confusion, EPA is removing other carbofuran tolerances that expired on December 31, 2009. Because these tolerances have expired, they are no longer legally valid. Consequently, EPA is deleting the following tolerances: (1) In 40 CFR 180.254(a) on alfalfa, forage (of which no more than 5 ppm are carbamates); alfalfa, hay (of which no more than 20 ppm are carbamates); barley, grain (of which no more than 0.1 ppm is carbamates); barley, straw (of which no more than 1.0 ppm is carbamates); beet, sugar, roots; beet, sugar, tops (of which no more than 1 ppm is carbamates); corn, field, forage (of which no more than 5 ppm are carbamates); corn, field, grain (of which no more than 0.1 ppm is carbamates); corn, field, stover (of which no more than 5 ppm are carbamates); corn, pop, grain (of which no more than 0.1 ppm is carbamates); corn, pop, stover (of which no more than 5 ppm are carbamates); corn, sweet, forage (of which no more than 5 ppm are carbamates); corn, sweet, kernel plus cob with husks removed (of which no more than 0.2 ppm is carbamates); corn, sweet, stover (of which no more than 5 ppm are carbamates); cotton, undelinted seed (of which no more than 0.2 ppm is carbamates); cranberry (of which no more than 0.3 ppm is carbamates); cucumber (of which no more than 0.2 ppm is carbamates); grape (of which no more than 0.2 ppm is carbamates); grape, raisin (of which no more than 1.0 ppm is carbamates); grape, raisin, waste (of which no more than 3.0 ppm are carbamates); melon (of which no more

than 0.2 ppm is carbamates); milk (of which no more than 0.02 ppm is carbamates); oat, grain (of which no more than 0.1 ppm is carbamates); oat, straw (of which no more than 1.0 ppm is carbamates); pepper (of which no more than 0.2 ppm is carbamates); potato (of which no more than 1 ppm is carbamates); pumpkin (of which no more than 0.6 ppm is carbamates); rice, straw (of which no more than 0.2 ppm is carbamates); sorghum, forage (of which no more than 0.5 ppm is carbamates); sorghum, grain, grain; sorghum, grain, stover (of which no more than 0.5 ppm is carbamates); strawberry (of which no more than 0.2 ppm is carbamates); soybean (of which no more than 0.2 ppm is carbamates); soybean, forage (of which no more than 20.0 ppm are carbamates); soybean, hay (of which no more than 20.0 ppm are carbamates); squash (of which no more than 0.6 ppm is carbamates); sunflower, seed (of which no more than 0.5 ppm is carbamates); wheat, grain (of which no more than 0.1 ppm is carbamates); and wheat, straw (of which no more than 1.0 ppm is carbamates); and (2) in 40 CFR 180.254(c) on artichoke, globe (of which no more than 0.2 ppm is carbamates).

V. Why is this a final order?

EPA is issuing a final order without providing either notice and an opportunity to comment, or an opportunity to raise objections. For a number of reasons, EPA has concluded that the issuance of a final order pursuant to FFDCA section 408(g)(2)(C) best reflects the current stage of the proceedings in this case, and is most appropriate to the circumstances under the applicable procedures of FFDCA section 408.

With respect to the import tolerances, the court vacated only the portion of EPA's final order that related to the revocation of the four carbofuran import tolerances, not the entire underlying action rulemaking and objections process that preceded the order. EPA has already conducted the procedures required under FFDCA sections 408(e) and (g); the public has previously had an opportunity to comment on and raise objections to the EPA decisions reflected in the amendments to the CFR described in this document. The only revisions to the CFR relating to the import tolerances are those that are being taken merely to be consistent with the court's order, which left EPA with no discretion as to the actions necessary to implement the order. Finally, this action does not therefore affect the legal status or otherwise effect any substantive change to these tolerances, but merely amends the CFR to

accurately reflect the present legal status of these tolerances. Because the D.C. Circuit's vacatur rendered EPA's 2009 revocation action without effect, these tolerances are currently in effect.

The deletion from the CFR of the carbofuran tolerances that have already expired presents essentially the same procedural and substantive case. EPA's action does not affect the legal status of these tolerances in any way. The deletion from the CFR of the currently expired carbofuran tolerances merely reflects the present legal status of these tolerances. In addition, EPA has already conducted the procedures required under FFDCA sections 408(e) and (g) to effectuate these revisions; the public has previously had an opportunity to comment on and raise objections to the EPA decision to establish the expiration dates for these particular tolerances (73 FR 44864, July 31, 2008 (FRL-8373-8); 74 FR 23046, May 15, 2009 (FRL-8413-3); and 74 FR 59608, November 18, 2009 (FRL-8797-6)).

VI. When do these actions become effective?

As stated in the **DATES** section of this document, this order and the corresponding changes to 40 CFR part 180 are effective April 17, 2015.

VII. Statutory and Executive Order Reviews

In this action, EPA is amending 40 CFR part 180 to accurately reflect the current legal status of a number of carbofuran tolerances by means of an order and not a rule (21 U.S.C. 346a(f)(1)(C)). Under the Administrative Procedure Act (APA), orders are expressly excluded from the definition of a rule (5 U.S.C. 551(4)). Accordingly, the regulatory assessment requirements imposed on a rulemaking do not apply to this order, as explained further in the following discussion.

Because this order is not a "regulatory action" as that term is defined in Executive Order 12866, entitled *Regulatory Planning and Review* (58 FR 51735, October 4, 1993), this action is not subject to review by the Office of Management and Budget (OMB) under Executive Orders 12866 and 13563, entitled *Improving Regulation and Regulatory Review* (76 FR 3821, January 21, 2011). As a result, this action is not subject to Executive Order 13045, entitled *Protection of Children from Environmental Health Risks and Safety Risks* (62 FR 19885, April 23, 1997), and Executive Order 13211 entitled *Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use* (66 FR 28355, May 22, 2001). In addition, since this order

is not a rule under the APA (5 U.S.C. 551(4)), and does not require the issuance of a proposed rule, the requirements of the Regulatory Flexibility Act (RFA) (5 U.S.C. 601 *et seq.*) do not apply.

This action does not contain any information collections or impose additional burdens that require approval by OMB under the Paperwork Reduction Act (PRA) (44 U.S.C. 3501 *et seq.*). Nor does this order require any special considerations under Executive Order 12898, entitled *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (59 FR 7629, February 16, 1994).

This order directly regulates growers, food processors, food handlers, and food retailers, not States or tribes; nor does this action alter the relationships or distribution of power and responsibilities established by Congress in the preemption provisions of FFDCA section 408(n)(4). As such, the Agency has determined that this action will not have a substantial direct effect on States or tribal governments, on the relationship between the national government and the State or tribal governments, or on the distribution of power and responsibilities among the various levels of government or between the Federal Government and Indian tribes. Thus the Agency has determined that Executive Order 13132, entitled *Federalism* (64 FR 43255, August 10, 1999), and Executive Order 13175, entitled *Consultation and Coordination with Indian Tribal Governments* (65 FR 67249, November 9, 2000), do not apply to this order. In addition, this order does not impose any enforceable duty or contain any unfunded mandate as described in the Unfunded Mandates Reform Act (UMRA) (2 U.S.C. 1531–1538).

VIII. Congressional Review Act (CRA)

The CRA (5 U.S.C. 801 *et seq.*) does not apply to this action because this order is not a rule as that term is defined in 5 U.S.C. 804(3). EPA will, however, submit a courtesy copy of this document to each House of the Congress and to the Comptroller General of the United States.

List of Subjects in 40 CFR Part 180

Environmental protection, Administrative practice and procedure, Agricultural commodities, Pesticides and pests, Reporting and recordkeeping requirements.

Dated: April 9, 2015.

Jack E. Housenger,
Director, Office of Pesticide Programs.

Therefore, 40 CFR chapter I is amended as follows:

PART 180—[AMENDED]

■ 1. The authority citation for part 180 continues to read as follows:

Authority: 21 U.S.C. 321(q), 346a and 371.

■ 2. In § 180.254, revise the table in paragraph (a) and revise paragraph (c) to read as follows:

§ 180.254 Carbofuran; tolerances for residues.

(a) * * *

Commodity	Parts per million
Banana ¹	0.1
Coffee, bean, green ¹	0.1
Rice, grain ¹	0.2
Sugarcane, cane ¹	0.1

¹ There are no U.S. registrations for use of carbofuran on these commodities.

* * * * *

(c) *Tolerances with regional registrations.* [Reserved]

* * * * *

[FR Doc. 2015-08784 Filed 4-16-15; 8:45 am]

BILLING CODE 6560-50-P

GENERAL SERVICES ADMINISTRATION

41 CFR Part 102-42

[FMR Change 2015-02; FMR Case 2014-102-3; Docket No. 2014-0019; Sequence No. 1]

RIN 3090-AJ49

Federal Management Regulation; Utilization, Donation, and Disposal of Foreign Gifts and Decorations

AGENCY: Office of Government-wide Policy, General Services Administration.

ACTION: Final rule.

SUMMARY: The General Services Administration (GSA) is amending the Federal Management Regulation (FMR). This amendment changes the means by which GSA publishes the redefined foreign gift minimal value rates and adds the term and definition of “spouse”.

DATES: *Effective:* April 17, 2015.

FOR FURTHER INFORMATION CONTACT: Mr. Robert Holcombe, Office of Government-wide Policy, Office of Asset and Transportation Management (MA), at 202-501-3828 or by email at

Robert.Holcombe@gsa.gov for clarification of content. For information pertaining to status or publication schedules contact the Regulatory Secretariat at 202-501-4755. Please cite FMR Case 2014-102-3.

SUPPLEMENTARY INFORMATION:

A. Background

Every three years, GSA is required to redefine the “minimal value” of foreign gifts under 5 U.S.C. 7342. In order for GSA to consult with the Secretary of State and publish this revised figure as closely to the effective date (January 1st) as possible, the redefined values will be published in a Federal Management Regulation (FMR) Bulletin at www.gsa.gov/personalpropertypolicy.

In addition, the definition of minimal value is being amended to state that an employing agency may, by regulation, define “minimal value” for its agency employees to be less than the GSA definition, in accordance with 5 U.S.C. 7342(a)(5)(B).

Finally, the term and definition of “spouse” is added to FMR part 102-42. Section 3 of the Defense of Marriage Act (DOMA), codified at 1 U.S.C. 7, provided that, when used in a Federal law, the term “spouse” referred only to a person of the opposite sex who is a husband or a wife. Because of DOMA, the Federal Government has been heretofore prohibited from recognizing marriages of same-sex couples for all Federal purposes, including asset management policies. On June 26, 2013, in *United States v. Windsor*, 570 U.S. 12 (2013), 133 S. Ct. 2675 (2013), the Supreme Court of the United States (Supreme Court) held Section 3 of DOMA unconstitutional. As a result, GSA is adding the definition of the term “spouse” to this part for clarity. This case is included in GSA’s retrospective review of existing regulations under Executive Order 13563. Additional information is located in GSA’s retrospective review (2014) available at: www.gsa.gov/improvingregulations.

B. Changes

This final rule:

(1) Changes the means by which GSA publishes updates to the definition of “minimal value” and makes the information available to the public;

(2) Adds the term and a definition for the term “spouse” to 41 CFR part 102-42; and

(3) Changes the citations in the authority section to reflect the codification of Title 40, United States Code, into positive law.

C. Executive Orders 12866 and 13563

Executive Orders (E.O.s) 12866 and 13563 direct agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). E.O. 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility. This final rule is not a significant regulatory action, and therefore, was not subject to review under Section 6(b) of E.O. 12866, Regulatory Planning and Review, dated September 30, 1993. This final rule is not a major rule under 5 U.S.C. 804.

D. Regulatory Flexibility Act

This final rule will not have a significant economic impact on a substantial number of small entities within the meaning of the Regulatory Flexibility Act, 5 U.S.C. 601, *et seq.* This final rule is also exempt from the Administrative Procedure Act per 5 U.S.C. 553(a)(2) because it applies to agency management or public property.

E. Paperwork Reduction Act

The Paperwork Reduction Act does not apply because the changes to the FMR do not impose information collection requirements that require the approval of the Office of Management

and Budget under 44 U.S.C. 3501, *et seq.*

F. Small Business Regulatory Enforcement Fairness Act

This final rule is exempt from Congressional review under 5 U.S.C. 801 since it does not substantially affect the rights or obligations of non-agency parties.

List of Subjects in 41 CFR Part 102–42

Conflict of interests, Decorations, medals, awards, Foreign relations, Government property, Government property management.

Dated: April 3, 2015.
Denise Turner Roth,
Acting Administrator of General Services.

For the reasons set forth in the preamble, GSA is amending 41 CFR part 102–42 as set forth below:

PART 102–42—UTILIZATION, DONATION, AND DISPOSAL OF FOREIGN GIFTS AND DECORATIONS

- 1. The authority citation for part 102–42 is revised to read as follows:

Authority: 40 U.S.C. 121(c); sec. 515, 5 U.S.C. 7342 (91 Stat. 862).

- 2. Amend § 102–42.10 by revising the definition “Minimal value”; and alphabetically adding the definition “Spouse” to read as follows:

§ 102–42.10 What definitions apply to this part?

* * * * *

Minimal value means a retail value in the United States at the time of acceptance that is at or below the dollar value established by GSA and published in a Federal Management Regulation (FMR) Bulletin at www.gsa.gov/personalpropertypolicy.

(1) GSA will adjust the definition of minimal value every three years, in consultation with the Secretary of State, to reflect changes in the Consumer Price Index for the immediately preceding 3-year period.

(2) An employing agency may, by regulation, specify a lower value than this Government-wide value for its agency employees.

Spouse means any individual who is lawfully married (unless legally separated), including an individual married to a person of the same sex who was legally married in a state or other jurisdiction (including a foreign country), that recognizes such marriages, regardless of whether or not the individual’s state of residency recognizes such marriages. The term *spouse* does not include individuals in a formal relationship recognized by a state, which is other than lawful marriage; it also does not include individuals in a marriage in a jurisdiction outside the United States that is not recognized as a lawful marriage under United States law.

[FR Doc. 2015–08861 Filed 4–16–15; 8:45 am]

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Proposed Rules

Federal Register

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Friday, April 17, 2015

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-0951; Directorate Identifier 2015-CE-007-AD]

RIN 2120-AA64

Airworthiness Directives; Przedsiębiorstwo Doswiadczalno-Produkcyjne Szybownictwa "PZL-Bielsko" Sailplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for Przedsiębiorstwo Doswiadczalno-Produkcyjne Szybownictwa "PZL-Bielsko" Model SZD-50-3 "Puchacz" sailplanes. This proposed AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as detachment of the rudder cable fitting block from the fuselage. We are issuing this proposed AD to require actions to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by June 1, 2015.

ADDRESSES: You may send comments by any of the following methods:

- *Federal eRulemaking Portal:* Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- *Fax:* (202) 493-2251.

- *Mail:* U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- *Hand Delivery:* U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey

Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Allstar PZL Glider, Sp. z o. o., ul. Cieszyńska 325, 43-300 Bielsko-Biala, Poland; telephone: +48 33 812 50 26; fax: +48 33 812 37 39; email: techsupport@szd.com.pl; Internet: <http://szd.com.pl/en/products/szd-50-3-puchacz>. You may review this referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-0951.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-0951; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone (800) 647-5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Jim Rutherford, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4165; fax: (816) 329-4090; email: jim.rutherford@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the **ADDRESSES** section. Include "Docket No. FAA-2015-0951; Directorate Identifier 2015-CE-007-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this

proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued AD No.: 2015-0046, dated March 16, 2015 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

An occurrence was reported involving a SZD-50-3 "Puchacz" sailplane, where a rudder cable fitting block, located in the forward part of the fuselage, detached after application of a high load on the steering pedal during spin recovery operation. Subsequent investigations determined that the failure was either caused by a manufacturing deficiency or originated by a crack.

This condition, if not detected and corrected, could lead to further cases of rudder cable fitting block detachment, resulting in reduced control of the sailplane.

To address this unsafe condition, Allstar PZL issued Service Bulletin (SB) No. BE-063/SZD-50-3/2014, to provide inspection and reinforcement instructions.

For the reasons described above, this AD requires accomplishment of a one-time inspection of both (right hand (RH) and left hand (LH)) rudder cable fitting blocks to verify proper attachment to the fuselage shell and, depending on finding(s), a repair. This AD also requires reinforcement of the affected structural area.

You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-0951.

Related Service Information Under 14 CFR part 51

Allstar PZL Glider has issued Mandatory Service Bulletin No. BE-063/SZD-50-3/2014 "Puchacz", dated December 14, 2014. The service bulletin describes procedures for inspecting the area around the left-hand and right-hand rudder cable fitting blocks for cracks and detachment and making all necessary repairs. This service information is reasonably available because the interested parties have access to it through their normal course

of business or by the means identified in the **ADDRESSES** section of this NPRM.

FAA's Determination and Requirements of the Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with this State of Design Authority, they have notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

Costs of Compliance

We estimate that this proposed AD will affect 5 products of U.S. registry. We also estimate that it would take about 1 work-hour per product to comply with the inspection requirement of this proposed AD. The average labor rate is \$85 per work-hour.

Based on these figures, we estimate the cost of the proposed inspection requirement of this proposed AD on U.S. operators to be \$425, or \$85 per product.

In addition, we estimate that it would take about 2 work-hours per product to comply with the modification requirement of this proposed AD and would require parts costing \$100.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a

substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new AD:

Przedsiębiorstwo Doswiadczalno-Produkcyjne Szybownictwa "PZL-Bielsko": Docket No. FAA-2015-0951; Directorate Identifier 2015-CE-007-AD.

(a) Comments Due Date

We must receive comments by June 1, 2015.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Przedsiębiorstwo Doswiadczalno-Produkcyjne Szybownictwa "PZL-Bielsko" Model SZD-50-3 "Puchacz" sailplanes, all serial numbers, certificated in any category.

(d) Subject

Air Transport Association of America (ATA) Code 27: Flight Controls.

(e) Reason

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI

describes the unsafe condition as detachment of the rudder cable fitting block from the fuselage. We are issuing this AD to prevent detachment of the rudder cable fitting block from the fuselage, which if not detected and corrected, could result in reduced control.

(f) Actions and Compliance

Unless already done, do the following actions:

(1) Within 30 days after the effective date of this AD, inspect the area around both the left-hand (LH) and the right-hand (RH) rudder cable fitting blocks following paragraph 3.1. of the INSTRUCTIONS section in Allstar PZL Glider Mandatory Service Bulletin No. BE-063/SZD-50-3/2014 "Puchacz", dated December 14, 2014.

(2) If, during the inspection required in paragraph (f)(1) of this AD, any crack or fitting block detachment is found, before further flight, repair and reinforce the attachment of both the LH and RH rudder cable fitting blocks. Do this repair and reinforcement following paragraph 3.2. of the INSTRUCTIONS section in Allstar PZL Glider Mandatory Service Bulletin No. BE-063/SZD-50-3/2014 "Puchacz", dated December 14, 2014.

(3) Unless already done following the requirement in paragraph (f)(2) of this AD, within the next 12 months after the effective date of this AD, reinforce the attachment of both the LH and RH rudder cable fitting blocks. Do this reinforcement following paragraph 3.2. of the INSTRUCTIONS section in Allstar PZL Glider Mandatory Service Bulletin No. BE-063/SZD-50-3/2014 "Puchacz", dated December 14, 2014.

(g) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, Standards Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Jim Rutherford, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4165; fax: (816) 329-4090; email: jim.rutherford@faa.gov. Before using any approved AMOC on any sailplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) *Airworthy Product:* For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(h) Related Information

Refer to MCAI European Aviation Safety Agency (EASA) AD No.: 2015-0046, dated March 16, 2015, for related information. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-0951. For service information related to this AD, contact Allstar PZL Glider, Sp. z o. o., ul.

Cieszynska 325, 43–300 Bielsko-Biala, Poland; telephone: +48 33 812 50 26; fax: +48 33 812 37 39; email: techsupport@szd.com.pl; Internet: <http://szd.com.pl/en/products/szd-50-3-puchacz>. You may review this referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329–4148.

Issued in Kansas City, Missouri, on April 8, 2015.

Earl Lawrence,

Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2015–08733 Filed 4–16–15; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2014–1123; Directorate Identifier 2014–CE–037–AD]

RIN 2120–AA64

Airworthiness Directives; GA 8 Airvan (Pty) Ltd Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for GA 8 Airvan (Pty) Ltd Model GA8–TC320 airplanes that would revise AD 2015–06–02. This proposed AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as missing required engine mount fire seal washers, which could reduce the engine retention capability in the event of a fire. We are issuing this proposed AD to require actions to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by June 1, 2015.

ADDRESSES: You may send comments by any of the following methods:

- *Federal eRulemaking Portal:* Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- *Fax:* (202) 493–2251.

- *Mail:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- *Hand Delivery:* U.S. Department of Transportation, Docket Operations,

M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact GA 8 Airvan (Pty) Ltd, c/o GippsAero Pty Ltd, Attn: Technical Services, P.O. Box 881, Morwell Victoria 3840, Australia; telephone: + 61 03 5172 1200; fax: +61 03 5172 1201; email:

techpubs@gippsaero.com; Internet: <http://www.gippsaero.com/customer-support/technical-publications.aspx>.

You may view this referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329–4148.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA–2014–1123; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone (800) 647–5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT:

Doug Rudolph, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329–4059; fax: (816) 329–4090; email: doug.rudolph@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the **ADDRESSES** section. Include “Docket No. FAA–2014–1123; Directorate Identifier 2014–CE–037–AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also

post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On March 12, 2015, we issued AD 2015–06–02, Amendment 39–18120 (80 FR 14810; March 20, 2015). That AD required actions intended to address an unsafe condition on GA 8 Airvan (Pty) Ltd Model GA8–TC320 airplanes and was based on mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country.

Since we issued AD 2015–06–02, a specific serial number range has been identified for applicability.

The Civil Aviation Safety Authority (CASA), which is the aviation authority for Australia, has issued AD/GA8/8, Amdt 1, dated March 26, 2015 (referred to after this as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

A recent review of the engine mount installation on the GA8–TC 320 aircraft has highlighted the omission of engine mount fire seal washers during the assembly process.

The current engine mount configuration does not meet the certification basis for the aircraft, specifically regulation 23.865 of the Federal Aviation Regulations of the United States of America, where engine mounts located in designated fire zones are required to be suitably shielded so that they are capable of withstanding the effects of a fire.

The Gippsland Aeronautics GA8–TC 320 aircraft require the installation of an approved steel washer at each of the engine mount locations to address a potential risk of reduced engine retention capability in the event of a fire.

This AD, AD/GA8/8 Amdt 1, amends the applicability statement to be inclusive of the affected aircraft serial number range.

You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA–2014–1123.

Related Service Information Under 1 CFR 51

GippsAero has issued Mandatory Service Bulletin SB–GA8–2014–115, Issue 1, dated October 6, 2014. The service bulletin describes procedures for inspecting the orientation of the engine isolator mounts to verify proper installation, re-installing if necessary, and installing steel washers on the forward side of each side of the engine isolator mounts. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the **ADDRESSES** section of this NPRM.

FAA's Determination and Requirements of the Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with this State of Design Authority, they have notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

Costs of Compliance

We estimate that this proposed AD will affect 13 products of U.S. registry. We also estimate that it would take about 5 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$10 per product.

Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$5,655, or \$435 per product.

According to the manufacturer, all of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a

substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,
 (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by removing Amendment 39–18120 (80 FR 14810, March 20, 2015), and adding the following new AD:

GA 8 Airvan (Pty) Ltd: Docket No. FAA–2014–1123; Directorate Identifier 2014–CE–037–AD.

(a) Comments Due Date

We must receive comments by June 1, 2015.

(b) Affected ADs

This AD revises AD 2015–06–02, Amendment 39–18120 (80 FR 14810; March 20, 2015).

(c) Applicability

This AD applies to GA 8 Airvan (Pty) Ltd GA8–TC320 airplanes, all serial numbers up to and including GA8–TC 320–14–205, certificated in any category.

(d) Subject

Air Transport Association of America (ATA) Code 71: Power Plant.

(e) Reason

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another

country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as missing required engine mount fire seal washers, which could reduce the engine retention capability in the event of a fire. We are issuing this proposed AD to revise the applicable airplane serial numbers and to detect and correct the omission of steel washers at each isolator mount location, which, if not corrected, could result in reduced engine retention capability in the event of a fire.

(f) Actions and Compliance

Unless already done, comply with this AD within the compliance times specified in paragraphs (f)(1) through (f)(3) of this AD:

(1) Within the next 300 hours time-in-service after the effective date of this AD or within the next 12 months after the effective date of this AD, whichever occurs first, inspect the orientation of the engine isolator mounts to verify that the mounts have been installed properly following the Accomplishment Instructions in GippsAero Mandatory Service Bulletin SB–GA8–2014–115, Issue 1, dated October 6, 2014.

(2) Before reinstalling the engine isolator mounts following the inspection required in paragraph (f)(1) of this AD, before further flight, install a part number J–2218–61 steel washer on the forward side of each of the four engine isolator mounts, following the Accomplishment Instructions in GippsAero Mandatory Service Bulletin SB–GA8–2014–115, Issue 1, dated October 6, 2014.

(3) If during the inspection required in paragraph (f)(1) of this AD, any of the engine isolator mounts are found to not comply with the specifications found in the Accomplishment Instructions of GippsAero Mandatory Service Bulletin SB–GA8–2014–115, Issue 1, dated October 6, 2014, before further flight, re-install the isolators to the correct orientation, or if damage is found, replace with airworthy parts.

(g) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, Standards Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Doug Rudolph, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329–4059; fax: (816) 329–4090; email: doug.rudolph@faa.gov. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) *Airworthy Product:* For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(h) Related Information

Refer to MCAI Civil Aviation Safety Authority (CASA) AD No. AD/GA8/8, Amdt 1, dated March 26, 2015. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-1123. For service information related to this AD, contact GA 8 Airvan (Pty) Ltd, c/o GippsAero Pty Ltd, Attn: Technical Services, P.O. Box 881, Morwell Victoria 3840, Australia; telephone: + 61 03 5172 1200; fax: +61 03 5172 1201; email: techpubs@gippsaero.com; Internet: <http://www.gippsaero.com/customer-support/technical-publications.aspx>. You may review this referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued in Kansas City, Missouri, on April 8, 2015.

Earl Lawrence,

Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2015-08720 Filed 4-16-15; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF EDUCATION**34 CFR Part 396**

[Docket ID ED-2015-OSERS-0024]

Proposed Waiver and Extension of the Project Period; Regional Interpreter Education Centers for the Training of Interpreters for Individuals Who Are Deaf or Hard of Hearing and Individuals Who Are Deaf-Blind

AGENCY: Rehabilitation Services Administration (RSA), Office of Special Education and Rehabilitative Services (OSERS), Department of Education.

ACTION: Proposed waiver and extension of the project period.

Catalog of Federal Domestic Assistance (CFDA) Number: 84.160A.

SUMMARY: The Secretary proposes to waive the requirements that generally prohibit project periods exceeding five years and extensions of project periods involving the obligation of additional Federal funds for five 60-month projects initially funded in fiscal year (FY) 2010. The Secretary also proposes to extend the project period for these projects for one year. The proposed waiver and extension would enable the currently funded Regional Interpreter Education Centers for the training of interpreters for individuals who are deaf or hard of hearing and individuals who are deaf-blind to receive funding through September 30, 2016.

DATES: We must receive your comments on or before May 18, 2015.

ADDRESSES: Submit your comments through the Federal eRulemaking Portal or via postal mail, commercial delivery, or hand delivery. We will not accept comments submitted by fax or by email or those submitted after the comment period. To ensure that we do not receive duplicate copies, please submit your comments only once. In addition, please include the Docket ID at the top of your comments.

- *Federal eRulemaking Portal:* Go to www.regulations.gov to submit your comments electronically. Information on using Regulations.gov, including instructions for accessing agency documents, submitting comments, and viewing the docket, is available on the site under "Are you new to the site?"

- *Postal Mail, Commercial Delivery, or Hand Delivery:* If you mail or deliver your comments about this proposed waiver and extension of the project period, address them to Kristen Rhinehart-Fernandez, U.S. Department of Education, 400 Maryland Avenue SW., Room 5027, Potomac Center Plaza (PCP), Washington, DC 20202-2800.

Privacy Note: The Department's policy is to make all comments received from members of the public available for public viewing in their entirety on the Federal eRulemaking Portal at www.regulations.gov. Therefore, commenters should be careful to include in their comments only information that they wish to make publicly available.

FOR FURTHER INFORMATION CONTACT:

Kristen Rhinehart-Fernandez.
Telephone: (202) 245-6103 or by email: Kristen.rhinehart@ed.gov.

If you use a telecommunications device for the deaf (TDD) or a text telephone (TTY), call the Federal Relay Service (FRS), toll-free, at 1-800-877-8339.

SUPPLEMENTARY INFORMATION:

Invitation to Comment: We invite you to submit comments about this proposed waiver and extension of the project period. During and after the comment period, you may inspect all public comments about this proposed waiver and extension of the project period by accessing Regulations.gov. You may also inspect all public comments in Room 5027, Potomac Center Plaza, 550 12th Street SW., Washington, DC, between the hours of 8:30 a.m. and 4:00 p.m., Washington, DC time, Monday through Friday of each week except Federal holidays.

Assistance to Individuals with Disabilities in Reviewing the Rulemaking Record: On request we will supply an appropriate accommodation or auxiliary aid to an individual with a

disability who needs assistance to review the comments or other documents in the public rulemaking record for this proposed waiver and extension of the project period. If you want to schedule an appointment for this type of accommodation or auxiliary aid, please contact the person listed under **FOR FURTHER INFORMATION CONTACT**.

Background

On June 7, 2010, the Department published a notice inviting applications for new awards for FY 2010 (75 FR 32164) for Regional Interpreter Education Centers (Regional Centers) to be funded under the Rehabilitation Training Program, authorized under section 302 of the Rehabilitation Act of 1973, as amended (Rehabilitation Act). The purpose of the Regional Centers is to establish regional interpreter training programs that will train a sufficient number of qualified interpreters to meet the communications needs of individuals who are deaf or hard of hearing and individuals who are deaf-blind. The Department awarded grants to five Regional Centers in FY 2010 for a period of 60 months. All five projects are scheduled to end on September 30, 2015.

We have determined that it would not be in the public interest to run a competition under this program in FY 2015 for new Regional Centers. RSA has funded interpreter training programs since 1964 to meet the needs of its vocational rehabilitation (VR) consumers who are deaf, hard of hearing, and deaf-blind. At each critical juncture RSA has re-evaluated its interpreter training program to determine how to best meet the evolving needs of consumers of interpreting services. In the course of this ongoing re-evaluation, we have concluded that, since 2005, when the current priorities were established for the Regional Centers, the training needs of interpreters have changed as a result of new and emerging issues facing VR consumers who are deaf, hard of hearing, and deaf-blind.

Conducting a competition before the Department has had an opportunity to engage in strategic planning activities for the current program could result in (1) an ineffective or poorly targeted investment that would not meet the training needs of qualified interpreters and (2) the inability to sufficiently meet the communication needs of individuals who are deaf or hard of hearing and individuals who are deaf-blind. We intend to use the remainder of FY 2015 and part of FY 2016 to consider how Regional Centers can employ promising

practices in their pedagogy and skill development training in order to meet the current and future needs of VR consumers who are deaf, hard of hearing, or deaf-blind so that they can obtain competitive integrated employment. We also plan to use online forums to collect input and feedback from local and national partner networks, including consumer and professional organizations for interpreting and interpreter training. These activities will inform our development of new funding priorities for publication in FY 2016.

We have also concluded that it would be contrary to the public interest to have a lapse in the provision of the training currently provided by the Regional Centers. Allowing funding to lapse before a new interpreter education delivery system can be implemented would leave individuals who are deaf or hard of hearing and individuals who are deaf-blind without necessary supports in the event that critical needs arise.

For these reasons, the Secretary proposes to waive the requirements in 34 CFR 75.250, which prohibit project periods exceeding five years, and the requirements in 34 CFR 75.261(c)(2), which limits the extension of a project period if the extension involves the obligation of additional Federal funds, and to issue continuation awards to the five current grantees. Under this proposal, the five current grantees with project periods ending on September 30, 2015, would receive funding to operate for an additional 12 months. Consequently, the expiration date for all five grants would be September 30, 2016. With this proposed waiver and extension of the project period, each Regional Center will be required to develop a plan to demonstrate how it will continue to carry out activities during the year of the continuation award consistent with the scope, goals, and objectives of the grantee's application as approved in the 2010 competition. Such plans should be submitted to RSA for review and approval by September 1, 2015.

If the proposed waiver and extension of the project period are announced in a final notice in the **Federal Register**, the requirements applicable to continuation awards for this competition set forth in the 2010 notice inviting applications and the requirements in 34 CFR 75.253 would apply to any continuation awards sought by the current grantees. If we announce the waiver and extension as final, we will base our decisions regarding continuation awards on the program narratives, budgets, budget narratives, and program performance

reports submitted by the current grantees, and the requirements in 34 CFR 75.253.

Regulatory Flexibility Act Certification

The Secretary certifies that this proposed waiver and extension of the project period would not have a significant economic impact on a substantial number of small entities. The only entities that would be affected are the five current grantees receiving Federal funds to serve as the Regional Centers and any other potential applicants.

The Secretary certifies that the proposed waiver and extension would not have a significant economic impact on these entities because the extension of an existing project period imposes minimal compliance costs, and the activities required to support the additional year of funding would not impose additional regulatory burdens or require unnecessary Federal supervision.

Paperwork Reduction Act of 1995

This notice of proposed waiver and extension of the project period does not contain any information collection requirements.

Intergovernmental Review: This program is subject to the requirements of Executive Order 12372 and the regulations in 34 CFR part 79. One of the objectives of the Executive order is to foster an intergovernmental partnership and a strengthened federalism. The Executive order relies on processes developed by State and local governments for coordination and review of proposed Federal financial assistance. This document provides early notification of our specific plans and actions for this program.

Accessible Format: Individuals with disabilities can obtain this document in an accessible format (e.g., braille, large print, audiotope, or compact disc) on request to the contact person listed under **FOR FURTHER INFORMATION CONTACT**.

Electronic Access to This Document: The official version of this document is the document published in the **Federal Register**. Free Internet access to the official edition of the **Federal Register** and the Code of Federal Regulations is available via the Federal Digital System at: www.gpo.gov/fdsys. At this site you can view this document, as well as all other documents of this Department published in the **Federal Register**, in text or Adobe Portable Document Format (PDF). To use PDF you must have Adobe Acrobat Reader, which is available free at the site.

You may also access documents of the Department published in the **Federal Register** by using the article search feature at: www.federalregister.gov. Specifically, through the advanced search feature at this site, you can limit your search to documents published by the Department.

Dated: April 13, 2015.

Sue Swenson,

Acting Assistant Secretary for Special Education and Rehabilitative Services.

[FR Doc. 2015-08912 Filed 4-16-15; 8:45 am]

BILLING CODE 4000-01-P

DEPARTMENT OF EDUCATION

34 CFR Part 396

[Docket ID ED-2015-OSERS-0022]

Proposed Waiver and Extension of the Project Period; National Interpreter Education Center for the Training of Interpreters for Individuals Who Are Deaf and Hard of Hearing and Individuals Who Are Deaf-Blind

AGENCY: Rehabilitation Services Administration (RSA), Office of Special Education and Rehabilitative Services, Department of Education.

ACTION: Proposed waiver and extension of the project period.

Catalog of Federal Domestic Assistance (CFDA) Number: 84.160B

SUMMARY: The Secretary proposes to waive the requirements that generally prohibit project periods exceeding five years and extensions of project periods involving the obligation of additional Federal funds for a 60-month project initially funded in fiscal year (FY) 2010. The Secretary also proposes to extend the project period for one year. The proposed waiver and extension would enable the currently funded National Interpreter Education Center to receive funding through September 30, 2016.

DATES: We must receive your comments on or before May 18, 2015.

ADDRESSES: Submit your comments through the Federal eRulemaking Portal or via postal mail, commercial delivery, or hand delivery. We will not accept comments submitted by fax or by email or those submitted after the comment period. To ensure that we do not receive duplicate copies, please submit your comments only once. In addition, please include the Docket ID at the top of your comments.

• *Federal eRulemaking Portal:* Go to www.regulations.gov to submit your comments electronically. Information on using Regulations.gov, including instructions for accessing agency

documents, submitting comments, and viewing the docket, is available on the site under "Are you new to the site?"

• *Postal Mail, Commercial Delivery, or Hand Delivery:* If you mail or deliver your comments about this proposed waiver and extension of the project period, address them to Kristen Rhinehart-Fernandez, U.S. Department of Education, 400 Maryland Avenue SW., Room 5027, Potomac Center Plaza (PCP), Washington, DC 20202-2800.

Privacy Note: The Department's policy is to make all comments received from members of the public available for public viewing in their entirety on the Federal eRulemaking Portal at www.regulations.gov. Therefore, commenters should be careful to include in their comments only information that they wish to make publicly available.

FOR FURTHER INFORMATION CONTACT:

Kristen Rhinehart-Fernandez.
Telephone: (202) 245-6103 or by email: Kristen.rhinehart@ed.gov.

If you use a telecommunications device for the deaf (TDD) or a text telephone (TTY), call the Federal Relay Service (FRS), toll-free, at 1-800-877-8339.

SUPPLEMENTARY INFORMATION:

Invitation to Comment: We invite you to submit comments about this proposed waiver and extension of the project period. During and after the comment period, you may inspect all public comments about this proposed waiver and extension of the project period by accessing Regulations.gov. You may also inspect all public comments about this proposal in Room 5027, Potomac Center Plaza, 550 12th Street SW., Washington, DC, between the hours of 8:30 a.m. and 4:00 p.m., Washington, DC time, Monday through Friday of each week except Federal holidays.

Assistance to Individuals with Disabilities in Reviewing the Rulemaking Record: On request we will supply an appropriate accommodation or auxiliary aid to an individual with a disability who needs assistance to review the comments or other documents in the public rulemaking record for this proposed waiver and extension of the project period. If you want to schedule an appointment for this type of accommodation or auxiliary aid, please contact the person listed under **FOR FURTHER INFORMATION CONTACT**.

Background

On May 17, 2010, the Department published a notice inviting applications for new awards for FY 2010 (75 FR

27539) for a National Interpreter Education Center (National Center) to be funded under the Rehabilitation Training Program, authorized under section 302 of the Rehabilitation Act of 1973, as amended (Rehabilitation Act). The purpose of the National Center is to assist Regional Interpreter Education Centers (Regional Centers) to train a sufficient number of qualified interpreters to meet the communications needs of individuals who are deaf or hard of hearing and individuals who are deaf-blind. The Department awarded a grant to one National Center in FY 2010 for a period of 60 months. This project is scheduled to end on September 30, 2015.

We have determined that it would not be in the public interest to run a competition under this program in FY 2015 for a new National Center. RSA has funded interpreter training programs since 1964 to meet the needs of its vocational rehabilitation (VR) consumers who are deaf, hard of hearing, and deaf-blind. At each critical juncture RSA has re-evaluated its interpreter training program to determine how to best meet the evolving needs of consumers of interpreting services. In the course of this ongoing re-evaluation, we have concluded that, since 2005, when the current priority was established for the National Center, the training needs of interpreters have changed as a result of new and emerging issues facing VR consumers who are deaf, hard of hearing, and deaf-blind.

Conducting a competition before the Department has had an opportunity to engage in strategic planning activities for the current program could result in (1) an ineffective or poorly targeted investment that would not meet the training needs of qualified interpreters and (2) the inability to sufficiently meet the communication needs of individuals who are deaf or hard of hearing and individuals who are deaf-blind. We intend to use the remainder of FY 2015 and part of FY 2016 to consider how a National Center can best support the work of the Regional Centers; influence the field of interpreter education; and ultimately meet the current and future needs of VR consumers who are deaf, hard of hearing, and deaf-blind so that they can obtain competitive integrated employment. We also plan to engage consumers, consumer organizations, community resources, service providers (especially VR agencies), VR State coordinators for the deaf, rehabilitation counselors for the deaf, and other appropriate individuals and entities about their ongoing and projected needs for a National Center, as well as gather examples of how they might utilize a

National Center in the future. These activities will inform new funding priorities planned in FY 2016 for this program.

We have also concluded that it would be contrary to the public interest to have a lapse in the provision of the training currently provided by the National Center. Allowing funding to lapse before a new interpreter education delivery system can be implemented would leave individuals who are deaf or hard of hearing and individuals who are deaf-blind without necessary supports in the event that critical needs arise.

For these reasons, the Secretary proposes to waive the requirements in 34 CFR 75.250, which prohibit project periods exceeding five years, and the requirements in 34 CFR 75.261(c)(2), which limit the extension of a project period if the extension involves the obligation of additional Federal funds, and to issue a continuation award to the current National Center. Under this proposal, the current grantee with a project period ending on September 30, 2015, would receive funding to operate for an additional 12 months.

Consequently, the expiration date for this grant would be September 30, 2016. With this proposed waiver and extension of the project period, the National Center will be required to develop a plan to demonstrate how it will continue to carry out activities during the year of the continuation award consistent with the scope, goals, and objectives of the grantee's application as approved in the 2010 competition. Such a plan should be submitted to RSA for review and approval by September 1, 2015.

If the proposed waiver and extension of the project period are announced in a final notice in the **Federal Register**, the requirements applicable to continuation awards for this competition set forth in the 2010 notice inviting applications and the requirements in 34 CFR 75.253 would apply to any continuation award sought by the current grantee. If we announce the waiver and extension as final, we will base our decision regarding a continuation award on the program narrative, budget, budget narrative, and program performance reports submitted by the current grantee, and the requirements in 34 CFR 75.253.

Regulatory Flexibility Act Certification

The Secretary certifies that this proposed waiver and extension of the project period would not have a significant economic impact on a substantial number of small entities. The only entities that would be affected are the current grantee receiving Federal

funds to serve as the National Center and any other potential applicants.

The Secretary certifies that the proposed waiver and extension would not have a significant economic impact on these entities because the extension of an existing project imposes minimal compliance costs, and the activities required to support the additional year of funding would not impose additional regulatory burdens or require unnecessary Federal supervision.

Paperwork Reduction Act of 1995

This notice of proposed waiver and extension of the project period does not contain any information collection requirements.

Intergovernmental Review: This program is subject to the requirements of Executive Order 12372 and the regulations in 34 CFR part 79. One of the objectives of the Executive order is to foster an intergovernmental partnership and a strengthened federalism. The Executive order relies on processes developed by State and local governments for coordination and review of proposed Federal financial assistance. This document provides early notification of our specific plans and actions for this program.

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Electronic Access to This Document: The official version of this document is the document published in the **Federal Register**. Free Internet access to the official edition of the **Federal Register** and the Code of Federal Regulations is available via the Federal Digital System at: www.gpo.gov/fdsys. At this site you can view this document, as well as all other documents of this Department published in the **Federal Register**, in text or Adobe Portable Document Format (PDF). To use PDF you must have Adobe Acrobat Reader, which is available free at the site.

You may also access documents of the Department published in the **Federal Register** by using the article search feature at: www.federalregister.gov. Specifically, through the advanced search feature at this site, you can limit your search to documents published by the Department.

Dated: April 13, 2015.

Sue Swenson,

Acting Assistant Secretary for Special Education and Rehabilitative Services.

[FR Doc. 2015-08909 Filed 4-16-15; 8:45 am]

BILLING CODE 4000-01-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R05-OAR-2014-0188; FRL-9926-30-Region 5]

Approval and Promulgation of Air Quality Implementation Plans; Michigan; SO₂ Rules

AGENCY: Environmental Protection Agency.

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve a request by the Michigan Department of Environmental Quality (MDEQ) submitted on February 14, 2014, and supplemented on October 27, 2014, to revise the Michigan state implementation plan (SIP) to incorporate sulfur dioxide (SO₂) limits found in "Part 4: Emissions Limitations and Prohibitions—Sulfur Bearing Compounds" of Michigan's Air Pollution Control Rules. EPA is proposing to take no action on the provisions pertaining to the Federal Clean Air Interstate Rule (CAIR) SO₂ trading program because CAIR is no longer in effect.

DATES: Comments must be received on or before May 18, 2015.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R05-OAR-2014-0188 by one of the following methods:

1. www.regulations.gov: Follow the on-line instructions for submitting comments.
2. *Email:* blakley.pamela@epa.gov.
3. *Fax:* (312) 692-2450.
4. *Mail:* Pamela Blakley, Chief,

Control Strategies Section (AR-18J), U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604.

5. *Hand Delivery:* Pamela Blakley, Chief, Control Strategies Section (AR-18J), U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604. Such deliveries are only accepted during the Regional Office normal hours of operation, and special arrangements should be made for deliveries of boxed information. The Regional Office official hours of business are Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding Federal holidays.

Please see the direct final rule which is located in the Rules section of this **Federal Register** for detailed instructions on how to submit comments.

FOR FURTHER INFORMATION CONTACT: Charles Hatten, Environmental

Engineer, Control Strategies Section, Air Programs Branch (AR-18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 886-6031, hatten.charles@epa.gov.

SUPPLEMENTARY INFORMATION: In the Final Rules section of this **Federal Register**, EPA is approving a portion of the State's SIP submittal as a direct final rule without prior proposal because the Agency views this as a noncontroversial submittal and anticipates no adverse comments. A detailed rationale for the approval is set forth in the direct final rule. If EPA does not receive adverse comments in response to this rule, no further activity is contemplated. If EPA receives adverse comments, EPA will withdraw the direct final rule and will address all public comments received in a subsequent final rule based on this proposed rule. EPA will not institute a second comment period. Any parties interested in commenting on this action should do so at this time. Please note that if EPA receives adverse comment on an amendment, paragraph, or section of this rulemaking, and if that provision can be severed from the remainder of the rule, EPA may adopt as final those provisions of the rule that are not the subject of an adverse comment. For additional information, see the direct final rule which is located in the Rules section of this **Federal Register**.

Dated: April 2, 2015.

Susan Hedman,

Regional Administrator, Region 5.

[FR Doc. 2015-08889 Filed 4-16-15; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R05-OAR-2014-0294; FRL-9926-28-Region-5]

Approval and Promulgation of Air Quality Implementation Plans; Indiana; CO Monitoring

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve a revision to Indiana's monitoring requirements as a revision to the State Implementation Plan (SIP). The SIP revision was submitted by Indiana to EPA on January 22, 2014. Once approved, the SIP would authorize emission units that combust sewage sludge to continuously monitor carbon

monoxide emissions, consistent with Federal requirements.

DATES: Comments must be received on or before May 18, 2015.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R05-OAR-2014-0294, by one of the following methods:

1. www.regulations.gov: Follow the on-line instructions for submitting comments.

2. Email: blakley.pamela@epa.gov.

3. Fax: (312) 692-2490.

4. Mail: Pamela Blakley, Chief, Control Strategies Section, Air Programs Branch (AR-18J), U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604.

5. Hand Delivery: Pamela Blakley, Chief, Control Strategies Section, Air Programs Branch (AR-18J), U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, Illinois 60604. Such deliveries are only accepted during the Regional Office normal hours of operation, and special arrangements should be made for deliveries of boxed information. The Regional Office official hours of business are Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding Federal holidays.

Please see the direct final rule which is located in the Rules section of this **Federal Register** for detailed instructions on how to submit comments.

FOR FURTHER INFORMATION CONTACT: Matt Rau, Environmental Engineer, Control Strategies Section, Air Programs Branch (AR-18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 886-6524, rau.matthew@epa.gov.

SUPPLEMENTARY INFORMATION: In the Final Rules section of this **Federal Register**, EPA is approving the State's SIP submittal as a direct final rule without prior proposal because the Agency views this as a noncontroversial submittal and anticipates no adverse comments. A detailed rationale for the approval is set forth in the direct final rule. If no adverse comments are received in response to this rulemaking, no further activity is contemplated. If EPA receives adverse comments, the direct final rule will be withdrawn and all public comments received will be addressed in a subsequent final rule based on this proposed rule. EPA will not institute a second comment period. Any parties interested in commenting on this action should do so at this time. Please note that if EPA receives adverse comment on an amendment, paragraph, or section of this rulemaking and if that provision may be severed from the

remainder of the rule, EPA may adopt as final those provisions of the rule that are not the subject of an adverse comment. For additional information, see the direct final rule which is located in the Rules section of this **Federal Register**.

Dated: April 2, 2015.

Susan Hedman,

Regional Administrator, Region 5.

[FR Doc. 2015-08886 Filed 4-16-15; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R06-OAR-2013-0542; FRL-9926-40-Region 6]

Reopening of Public Comment Period for Proposed Action; Texas; Revisions to the New Source Review State Implementation Plan; Flexible Permit Program

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule; reopening of comment period.

SUMMARY: On December 31, 2014, the Environmental Protection Agency (EPA) published in the **Federal Register** a proposed rule to fully approve the Texas New Source Review (NSR) State Implementation Plan (SIP) for establishing the Flexible Permit Program and requested comment by January 30, 2015. The EPA is reopening the original public comment period of 30 days for the proposed rule for an additional 30 days from the date of publication. The reopening is necessary because we neglected to include certain supporting materials in the electronic docket. All previously submitted comments will be responded to as appropriate, and members of the public who have submitted comments during the prior comment period need not resubmit them at this time.

DATES: The comment period for the proposed rule published December 31, 2014 (79 FR 78752), is reopened. Written comments must be received on or before May 18, 2015.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R06-OAR-2013-0542, by one of the following methods:

- <http://www.regulations.gov>. Follow the online instructions for submitting comments.

- *Email:* Ms. Stephanie Kordzi at kordzi.stephanie@epa.gov.

- *Mail or delivery:* Ms. Stephanie Kordzi, Air Permits Section (6PD-R),

Environmental Protection Agency, 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202-2733.

Instructions: Direct your comments to Docket ID No. EPA-R06-OAR-2013-0542. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at <http://www.regulations.gov>, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information the disclosure of which is restricted by statute. Do not submit information through <http://www.regulations.gov> or email, if you believe that it is CBI or otherwise protected from disclosure. The <http://www.regulations.gov> Web site is an "anonymous access" system, which means that the EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to EPA without going through <http://www.regulations.gov>, your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, we recommend that you include your name and other contact information in the body of your comment along with any disk or CD-ROM submitted. If we cannot read your comment due to technical difficulties and cannot contact you for clarification, we may not be able to consider your comment. Electronic files should avoid the use of special characters and any form of encryption and should be free of any defects or viruses. For additional information about our public docket, visit the EPA Docket Center homepage at <http://www.epa.gov/epahome/dockets.htm>.

Docket: The index to the docket for this action is available electronically at www.regulations.gov and in hard copy at EPA Region 6, 1445 Ross Avenue, Suite 700, Dallas, Texas. While all documents in the docket are listed in the index, some information may be publicly available only at the hard copy location (e.g., copyrighted material), and some may not be publicly available at either location (e.g., CBI).

FOR FURTHER INFORMATION CONTACT: Ms. Stephanie Kordzi, (214) 665-7520, kordzi.stephanie@epa.gov. To inspect the hard copy materials please contact Ms. Kordzi or Mr. Bill Deese at (214) 665-7253.

SUPPLEMENTARY INFORMATION: Throughout this document whenever

“we,” “us,” or “our” is used, we mean the EPA.

On December 31, 2014, we published in the **Federal Register** a proposed rule on the flexible permit program in Texas. See 79 FR 78752, December 31, 2014. In the original proposal, we requested comment by January 30, 2015. We are reopening the public comment period because we neglected to include certain supporting materials in Docket ID No. EPA-R06-OAR-2013-0542 at <http://www.regulations.gov>.

This reopening will provide an opportunity for the review and comment of all the relevant materials now posted in the public docket for 30 days from the date of today’s publication.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: April 7, 2015.

William L. Luthans,

Multimedia Planning and Permitting Acting Director, Region 6.

[FR Doc. 2015-08662 Filed 4-16-15; 8:45 am]

BILLING CODE 6560-50-P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 0

[WT Docket No. 15-81; FCC 15-40]

Electronically Stored Application and Licensing Data

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: This document proposes to amend the Commission’s Rules to specify that historical amateur radio licensee address information will not be routinely available for public inspection.

DATES: Submit comments on or before June 16, 2015 and reply comments are due July 16, 2015.

ADDRESSES: You may submit comments, identified by WT Docket No. 15-81; FCC 15-40, by any of the following methods:

- *Federal eRulemaking Portal:* <http://www.regulations.gov>. Follow the instructions for submitting comments.
- *Federal Communications Commission’s Web site:* <http://www.fcc.gov/cgb/ecfs/>. Follow the instructions for submitting comments.

• *People with Disabilities:* Contact the FCC to request reasonable accommodations (accessible format documents, sign language interpreters, CART, etc.) by email: FCC504@fcc.gov or phone 202-418-0530 or TTY: 202-418-0432.

For detailed instructions for submitting comments and additional information on the rulemaking process, see the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: Scot Stone, at Scot.Stone@fcc.gov, Mobility Division, Wireless Telecommunications Bureau, (202) 418-0638, TTY (202) 418-7233.

SUPPLEMENTARY INFORMATION: This is a summary of the Federal Communications Commission’s *Notice of Proposed Rulemaking* (NPRM), WT Docket No. 15-81; FCC 15-40, adopted March 31, 2015, and released March 31, 2015. The full text of this document is available for inspection and copying during normal business hours in the FCC Reference Center, 445 12th Street SW., Room CY-A257, Washington, DC 20554, or by downloading the text from the Commission’s Web site at www.fcc.gov. Alternative formats are available for people with disabilities (Braille, large print, electronic files, audio format), by sending an email to FCC504@fcc.gov or calling the Consumer and Government Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (TTY).

Summary

1. The Commission initiated this proceeding to amend its rules of organization that apply to amateur radio licensee address information that is routinely available for public inspection. Specifically, the Commission proposes in this *NPRM* to amend its rules to revise its rules to specify that historical amateur radio licensee address information (that is, address information not associated with a current license or pending application) will not be routinely available for public inspection. The Commission found that amending these rules will enhance amateur radio operators’ privacy without undermining the public interest in knowing who is authorized to operate on amateur spectrum. The Commission also seeks comment on whether this approach should be extended to individual licensees in any other Wireless Radio Services, such as the General Mobile Radio Service, commercial radio operator licensees, and individuals who

hold ship station and/or aircraft station licenses.

I. Procedural Matters

A. Ex Parte Rules—Permit-but-Disclose Proceeding

2. This is a permit-but-disclose notice and comment rulemaking proceeding. Ex parte presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in the Commission’s rules.

B. Comment Dates

3. Pursuant to §§ 1.415 and 1.419 of the Commission’s rules, interested parties may file comments on or before June 16, 2015, and reply comments are due July 16, 2015.

4. Commenters may file comments electronically using the Commission’s Electronic Comment Filing System (ECFS), the Federal Government’s eRulemaking Portal, or by filing paper copies. Commenters filing through the ECFS can be sent as an electronic file via the Internet to <http://www.fcc.gov/e-file/ecfs.html>. If multiple docket or rulemaking numbers appear in the caption of this proceeding, filers must transmit one electronic copy for each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Commenters may also submit an electronic comment by Internet email. To get filing instructions for email comments, commenters should send an email to ecfs@fcc.gov, and should include the following words in the body of the message, “get form.” Commenters will receive a sample form and directions in reply. Commenters filing through the Federal eRulemaking Portal <http://www.regulations.gov>, should follow the instructions provided on the Web site for submitting comments.

5. Commenters who chose to file paper comments must file an original and four copies of each comment. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number. All filings must be sent to the Commission’s Secretary, Office of the Secretary, Federal Communications Commission, 445 12th Street SW., Room TW-A325, Washington, DC 20554.

6. Commenters may send filings by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal

Service mail. The Commission's contractor will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 445 12th Street SW., Washington, DC 20554. Commenters must bind all hand deliveries together with rubber bands or fasteners and must dispose of any envelopes before entering the building. This facility is the only location where the Commission's Secretary will accept hand-delivered or messenger-delivered paper filings. Commenters must send commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) to 9300 East Hampton Drive, Capitol Heights, MD 20743. Commenters should address U.S. Postal Service first-class mail, Express Mail, and Priority Mail to 445 12th Street SW., Washington, DC 20554.

C. Paperwork Reduction Act

7. This document does not contain proposed information collection requirements subject to the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, therefore, it does not contain any proposed information collection burden "for small business concerns with fewer than 25 employees," pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4).

II. Initial Regulatory Flexibility Analysis

8. The Regulatory Flexibility Act requires an initial regulatory flexibility analysis to be prepared for notice and comment rulemaking proceedings, unless the agency certifies that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities." The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act. A "small business concern" is one which: (1) Is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).

9. In the NPRM, we propose to amend the Commission's rules of organization. In this NPRM, we propose to amend the Commission's inspection of records

rules to provide that only amateur radio licensee address information connected with current licenses and pending applications is routinely available for public inspection in ULS or in paper files. Because "small entities," as defined in the RFA, do not include a "person" as the term is used in this proceeding or an individual, the proposed rules do not apply to "small entities." Rather, they apply exclusively to individuals who are licensees of certain stations or who hold certain Commission authorizations. Therefore, we certify that the proposals in this NPRM, if adopted, will not have a significant economic impact on a substantial number of small entities.

III. Ordering Clauses

11. Accordingly, *it is ordered*, pursuant to sections 4(i), 303(r), and 403 of the Communications Act of 1934, 47 U.S.C. 154(i), 303(r), and 403, that this *Notice of Proposed Rulemaking* is hereby adopted.

12. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, shall send a copy of this *Notice of Proposed Rulemaking*, including the Initial Regulatory Flexibility Certification, to the Chief Counsel for Advocacy of the Small Business Administration.

List of Subjects in 47 CFR Part 0

Organization and functions.

Federal Communications Commission.

Marlene H. Dortch,
Secretary.

Proposed Rules

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR part 0 as follows:

PART 0—COMMISSION ORGANIZATION

■ 1. The authority citation for part 0 continues to read as follows:

Authority: Sec. 5, 48 Stat. 1068, as amended; 47 U.S.C. 155, 225, unless otherwise noted.

■ 2. Section 0.453 is amended by revising paragraphs (d) introductory text and (d)(4) to read as follows:

§ 0.453 Public reference rooms.

(d) *Wireless Telecommunications Services and Auction* related data as follows, except to the extent they are

excluded from routine public inspection under another section of this chapter:

* * * * *

(4) Electronically stored application and licensing data (including data filed manually and entered into ULS by Commission staff) for commercial radio operators and for all authorizations in the Wireless Radio Services are available for public inspection via the Commission's Web site, <http://wireless.fcc.gov/uls>. Wireless Radio services include Commercial and Private Mobile Radio, Common Carrier and Private Operational Fixed point-to-point Microwave, Local Television Transmission Service (LTTTS), Digital Electronic Message Service (DEMS), Aviation Ground and Marine Coast applications; and

* * * * *

■ 3. Section 0.457 is amended by revising paragraph (f) to read as follows:

§ 0.457 Records not routinely available for public inspection.

* * * * *

(f) *Personnel, medical and other files whose disclosure would constitute a clearly unwarranted invasion of personal privacy*, 5 U.S.C. 552(b)(6). (1) Under E.O. 10561, the Commission maintains an Official Personnel Folder for each of its employees. Such folders are under the jurisdiction and control, and are a part of the records, of the U.S. Office of Personnel Management. Except as provided in the rules of the Office of Personnel Management (5 CFR 293.311), such folders will not be made available for public inspection by the Commission. In addition, other records of the Commission containing private, personal or financial information concerning particular employees and Commission contractors will be withheld from public inspection.

(2) With respect to the Amateur Radio Service as that term is defined in § 97.3(a) of this chapter, address information on expired, canceled, or terminated licenses; archived versions of active licenses; and processed applications will not be made available for public inspection by the Commission. For such licensees, disclosure of an individual's historical address information is considered clearly unwarranted invasion of personal privacy.

* * * * *

[FR Doc. 2015-08810 Filed 4-16-15; 8:45 am]

BILLING CODE 6712-01-P

Notices

Federal Register

Vol. 80, No. 74

Friday, April 17, 2015

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

DEPARTMENT OF AGRICULTURE

Submission for OMB Review; Comment Request

April 14, 2015.

The Department of Agriculture has submitted the following information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104-13. Comments regarding (a) whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (b) the accuracy of the agency's estimate of burden including the validity of the methodology and assumptions used; (c) ways to enhance the quality, utility and clarity of the information to be collected; (d) ways to minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Comments regarding this information collection received by May 18, 2015 will be considered. Written comments should be addressed to: Desk Officer for Agriculture, Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), New Executive Office Building, 725 17th Street NW., Washington, DC 20502. Commenters are encouraged to submit their comments to OMB via email to: OIRA_Submission@OMB.EOP.GOV or fax (202) 395-5806 and to Departmental Clearance Office, USDA, OCIO, Mail Stop 7602, Washington, DC 20250-7602. Copies of the submission(s) may be obtained by calling (202) 720-8958.

An agency may not conduct or sponsor a collection of information unless the collection of information displays a currently valid OMB control number and the agency informs

potential persons who are to respond to the collection of information that such persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.

Farm Service Agency

Title: Noninsured Disaster Assistance Program.

OMB Control Number: 0560-0175.

Summary of Collection: The Noninsured Crop Assistance Program (NAP) is authorized under 7 U.S.C. 7333 and implemented under regulations issued at 7 CFR part 1437. NAP is administered by the Farm Service Agency (FSA) for the Commodity Credit Corporation (CCC) and is carried out by FSA State and County committees. The purpose of NAP is to help manage and reduce production risks faced by producers of eligible commercial crops or other agricultural commodities during a coverage period. NAP is intended to reduce financial losses that occur when natural disasters (damaging weather or adverse natural occurrence that is an eligible cause of loss) cause a loss of expected production or actual value for value loss crops, or where producers are prevented from planting an eligible crop because of an eligible cause of loss in a coverage period. NAP provides assistance for losses of floriculture, ornamental nursery, Christmas tree crops, turfgrass sod, seed crops, aquaculture (including ornamental fish), sea oats and sea grass. FSA will collect information using several forms.

Need and Use of the Information: The information collected is necessary to determine whether a producer and crop or commodity meet applicable conditions for assistance and to determine compliance with existing regulations. Producers must annually: (1) Request NAP coverage by completing an application for coverage and paying a service fee by the CCC-established application closing date; (2) file a current crop-year report of acreage for the covered crop or commodity; and (3) certify harvest production of each covered crop or commodity. The information collected allows CCC to provide assistance under NAP for losses of commercial crops or other agricultural commodities (except livestock) for which catastrophic risk protection under 7 U.S.C. Section 1508

is not available, and that are produced for food or fiber.

Description of Respondents: Farms; Business or other for-profit.

Number of Respondents: 72,294.

Frequency of Responses:

Recordkeeping; Reporting; On occasion; Weekly; Monthly; Annually.

Total Burden Hours: 847,425.

Ruth Brown,

*Departmental Information Collection
Clearance Officer.*

[FR Doc. 2015-08907 Filed 4-16-15; 8:45 am]

BILLING CODE 3410-05-P

COMMISSION ON CIVIL RIGHTS

Notice of Public Meeting of the Michigan Advisory Committee for a Meeting To Discuss Potential Project Topics

AGENCY: U.S. Commission on Civil Rights.

ACTION: Announcement of meeting.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission) and the Federal Advisory Committee Act that the Michigan Advisory Committee (Committee) will hold a meeting on Monday, May 11, 2015, at 3:00 p.m. EST for the purpose of discussing civil rights topics in the state and begin consideration of future projects.

Members of the public can listen to the discussion. This meeting is available to the public through the following toll-free call-in number: 888-572-7025, conference ID: 1183630. Any interested member of the public may call this number and listen to the meeting. An open comment period will be provided to allow members of the public to make a statement as time allows. The conference call operator will ask callers to identify themselves, the organization they are affiliated with (if any), and an email address prior to placing callers into the conference room. Callers can expect to incur charges for calls they initiate over wireless lines, and the Commission will not refund any incurred charges. Callers will incur no charge for calls they initiate over land-line connections to the toll-free telephone number. Persons with hearing impairments may also follow the proceedings by first calling the Federal

Relay Service at 1-800-977-8339 and providing the Service with the conference call number and conference ID number.

Member of the public are also entitled to submit written comments; the comments must be received in the regional office by June 11, 2015. Written comments may be mailed to the Midwestern Regional Office, U.S. Commission on Civil Rights, 55 W. Monroe St., Suite 410, Chicago, IL 60615. They may also be faxed to the Commission at (312) 353-8324, or emailed to Administrative Assistant, Carolyn Allen at callen@usccr.gov. Persons who desire additional information may contact the Midwestern Regional Office at (312) 353-8311.

Records generated from this meeting may be inspected and reproduced at the Midwestern Regional Office, as they become available, both before and after the meeting. Records of the meeting will be available via www.facadatabase.gov under the Commission on Civil Rights, Michigan Advisory Committee link. Persons interested in the work of this Committee are directed to the Commission's Web site, <http://www.usccr.gov>, or may contact the Midwestern Regional Office at the above email or street address.

Agenda

Welcome and Introductions

Donna Budnick, Chair

Discussion of civil rights issues in Michigan

Michigan Advisory Committee Members

Future plans and actions

Adjournment

DATES: The meeting will be held on Monday, May 11, 2015, at 3:00 p.m. EST.

Public Call Information

Dial: 888-572-7025

Conference ID: 1183630.

FOR FURTHER INFORMATION CONTACT: Carolyn Allen at callen@usccr.gov or 312-353-8311.

Dated: April 13, 2015.

David Mussatt,

Chief, Regional Programs Unit.

[FR Doc. 2015-08770 Filed 4-16-15; 8:45 am]

BILLING CODE 6335-01-P

COMMISSION ON CIVIL RIGHTS

Notice of Public Meeting of the Indiana Advisory Committee for a Meeting To Discuss Concept Papers on Potential Project Topics

AGENCY: U.S. Commission on Civil Rights.

ACTION: Announcement of meeting.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission) and the Federal Advisory Committee Act that the Indiana Advisory Committee (Committee) will hold a meeting on Tuesday, June 30, 2015, at 1:00 p.m. EST for the purpose of discussing concepts papers on civil rights topics in the state that Committee members drafted. The Committee may decide to vote on a future project of study at this meeting.

Members of the public can listen to the discussion. This meeting is available to the public through the following toll-free call-in number: 888-430-8709, conference ID: 7603733. Any interested member of the public may call this number and listen to the meeting. An open comment period will be provided to allow members of the public to make a statement as time allows. The conference call operator will ask callers to identify themselves, the organization they are affiliated with (if any), and an email address prior to placing callers into the conference room. Callers can expect to incur charges for calls they initiate over wireless lines, and the Commission will not refund any incurred charges. Callers will incur no charge for calls they initiate over land-line connections to the toll-free telephone number. Persons with hearing impairments may also follow the proceedings by first calling the Federal Relay Service at 1-800-977-8339 and providing the Service with the conference call number and conference ID number.

Member of the public are also entitled to submit written comments; the comments must be received in the regional office by July 30, 2015. Written comments may be mailed to the Midwestern Regional Office, U.S. Commission on Civil Rights, 55 W. Monroe St., Suite 410, Chicago, IL 60615. They may also be faxed to the Commission at (312) 353-8324, or emailed to Administrative Assistant, Carolyn Allen at callen@usccr.gov. Persons who desire additional information may contact the Midwestern Regional Office at (312) 353-8311.

Records generated from this meeting may be inspected and reproduced at the Midwestern Regional Office, as they become available, both before and after the meeting. Records of the meeting will be available via www.facadatabase.gov under the Commission on Civil Rights, Indiana Advisory Committee link. Persons interested in the work of this Committee are directed to the Commission's Web site, <http://www.usccr.gov>, or may contact the Midwestern Regional Office at the above email or street address.

Agenda

Welcome and Introductions

Diane Clements-Boyd, Chair
Discussion of concept papers

Indiana Advisory Committee Members

Future plans and actions
Adjournment

DATES: The meeting will be held on Tuesday, June 30, 2015, at 1:00 p.m. EST.

Public Call Information

Dial: 888-430-8709

Conference ID: 7603733.

FOR FURTHER INFORMATION CONTACT: Carolyn Allen at callen@usccr.gov or 312-353-8311.

Dated: April 13, 2015.

David Mussatt,

Chief, Regional Programs Unit.

[FR Doc. 2015-08769 Filed 4-16-15; 8:45 am]

BILLING CODE 6335-01-P

DEPARTMENT OF COMMERCE

International Trade Administration

[A-570-014]

53-Foot Domestic Dry Containers From the People's Republic of China: Final Determination of Sales at Less Than Fair Value; Final Negative Determination of Critical Circumstances

AGENCY: Enforcement and Compliance, International Trade Administration, Commerce.

SUMMARY: The Department of Commerce (the Department) determines that imports of 53-foot domestic dry containers (domestic dry containers) from the People's Republic of China (PRC) are being, or are likely to be, sold in the United States at less than fair value (LTFV), as provided in section 735 of the Tariff Act of 1930, as amended (the Act). The final weighted-average dumping margins for the investigation on domestic dry

containers from the PRC are listed below in the “Final Determination” section of this notice.

DATES: *Effective:* April 17, 2015.

FOR FURTHER INFORMATION CONTACT:

Brian Davis (Singamas), John Drury (CIMC), or Angelica Townshend, AD/CVD Operations, Office VI, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue NW., Washington, DC 20230; telephone: (202) 482–7924, (202) 482–0195 or (202) 482–3019, respectively.

SUPPLEMENTARY INFORMATION:

Background

On November 26, 2014, the Department published the preliminary determination of the LTFV investigation of domestic dry containers from the PRC in the **Federal Register**.¹ The following events occurred since then. On December 9, 2014, we received scope comments from interested parties Crowley Maritime Corporation and Crowley Liner Services, Inc., and Sea Star Lines LLC (collectively, “Crowley”). On December 1, 2014, respondent Singamas² submitted timely ministerial error allegations with respect to the Department’s calculation of the weighted-average dumping margin for Singamas.³ Also on December 1, 2014, Petitioner⁴ submitted ministerial error allegations⁵ with respect to respondent CIMC.⁶ We received no rebuttal comments regarding these allegations. On December 31, 2014, we published the amended preliminary determination in the **Federal Register**.⁷ Between

January 12, 2015, and January 23, 2015, the Department conducted verification of the mandatory respondents CIMC and Singamas. The Department issued the sales and factors-of-production verification reports for both CIMC and Singamas on February 26, 2015.⁸ On March 10, 2015, Petitioner, Crowley, CIMC, and Singamas filed case briefs (which included scope comments). On March 16, 2015, Petitioner, Crowley, CIMC, and Singamas filed rebuttal briefs (which included scope comments). The Department did not hold a hearing as all requests for a hearing were withdrawn.

Period of Investigation

The period of investigation (POI) is October 1, 2013, through March 31, 2014.

Scope Comments

The Department received comments regarding the scope of this investigation from interested parties. As detailed in the accompanying Issues and Decision Memorandum,⁹ we have not made any changes to the scope.¹⁰

Scope of the Investigation

The merchandise subject to investigation is closed (*i.e.*, not open top) van containers exceeding 14.63 meters (48 feet) but generally measuring 16.154 meters (53 feet) in exterior

length, which are designed for the intermodal transport¹¹ of goods other than bulk liquids within North America primarily by rail or by road vehicle, or by a combination of rail and road vehicle (domestic containers). Imports of the subject merchandise are provided for under subheading 8609.00.0000 of the Harmonized Tariff Schedule of the United States (HTSUS). Imports of the subject merchandise which meet the definition of and requirements for “instruments of international traffic” pursuant to 19 U.S.C. 1322 and 19 CFR 10.41a may be classified under subheading 9803.00.50, HTSUS. For a complete description of the scope of the investigation, *see* Appendix II to this notice.

Analysis of Comments Received

All issues raised in the case and rebuttal briefs by parties to this investigation are addressed in the Issues and Decision Memorandum accompanying this notice, which is hereby adopted by this notice. A list of the issues which the parties raised and to which the Department responded in the memorandum appears in Appendix I of this notice. The Issues and Decision Memorandum is a public document and is on file electronically *via* Enforcement and Compliance’s Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at <http://iaaccess.trade.gov> and is available to all parties in the Central Records Unit, Room 7046 of the main Department of Commerce building. In addition, a complete version of the Issues and Decision Memorandum can be accessed directly at <http://enforcement.trade.gov/frn/>. The signed and electronic versions of the memorandum are identical in content.

Changes Since the Amended Preliminary Determination

Based on our review and analysis of the comments received from parties, and minor corrections presented at verification, we made certain changes to CIMC’s and Singamas’s margin calculations since the *Amended Preliminary Determination*. For a discussion of these changes, *see* the Issues and Decision Memorandum and the Final Analysis Memoranda, all dated concurrently with this notice.¹²

¹¹ “Intermodal transport” refers to a movement of freight using more than one mode of transportation, most commonly on a container chassis for on-the-road transportation and on a rail car for rail transportation.

¹² *See* Final Analysis Memorandum for the PRC-Wide Entity, and Final Analysis Memorandum for Hui Zhou Pacific Container Co., Ltd. (HPCL),

¹ *See* 53-Foot Domestic Dry Containers From the People’s Republic of China: Preliminary Determination of Sales at Less than Fair Value; Preliminary Negative Determination of Critical Circumstances; and Postponement of Final Determination and Extension of Provisional Measures, 79 FR 70501 (November 26, 2014) (Preliminary Determination).

² Singamas consists of Hui Zhou Pacific Container Co., Ltd., Qingdao Pacific Container Co., Ltd., Qidong Singamas Energy Equipment Co., Ltd., and their holding company Singamas Container Holding Limited.

³ *See* Singamas’ Letter to the Department, “53-Foot Domestic Dry Containers from the People’s Republic of China: Ministerial Errors in the Preliminary Determination,” dated December 1, 2014.

⁴ Petitioner is Stoughton Trailers, LLC.

⁵ Petitioner’s Letter to the Department, “53-Foot Domestic Dry Containers from the People’s Republic of China,” dated December 1, 2014.

⁶ CIMC consists of China International Marine Containers (Group) Co., Ltd., China International Marine Containers (HK) Ltd., Xinhui CIMC Special Transportation Equipment Co., Ltd., Nantong CIMC-Special Transportation Equipment Manufacture Co., Ltd., and Qingdao CIMC Container Manufacture Co., Ltd.

⁷ *See* 53-Foot Domestic Dry Containers from the People’s Republic of China: Amended Preliminary Determination of Sales at Less-than-Fair-Value, 79

FR 78800 (December 31, 2014) (Amended Preliminary Determination).

⁸ *See* Verification of the Sales and Factors of Production Response of CIMC International Marine Containers (Group) Co., Ltd. (“CIMC Group”); China International Marine Containers (HK) Ltd. (“CIMC HK”); Guangdong Xinhui CIMC Special Transportation Equipment Co., Ltd. (“Xinhui Special”); Qingdao CIMC Containers Manufacture Co., Ltd. (“Qingdao”); Nantong CIMC-Special Transportation Equipment Manufacture Co., Ltd. (“Nantong”); and Xinhui CIMC Container Co., Ltd. (“Xinhui Container”) (collectively “CIMC”) in the Antidumping Duty Investigation of 53-Foot Domestic Dry Containers (“domestic dry containers”) from the People’s Republic of China (the “PRC”), dated February 26, 2015 (CIMC Verification Report); and Verification of the Sales and Factors of Production (FOPs) Response of Hui Zhou Pacific Container Co., Ltd. (HPCL); Qingdao Pacific Container Co., Ltd. (QPCL); Qidong Singamas Energy Equipment Co., Ltd. (QSCL); Singamas Container Holdings Limited (SCHL); and Singamas Management Services Limited (SMSL) (collectively, Singamas) in the Antidumping Duty Investigation of 53-Foot Domestic Dry Containers (domestic dry containers) from the People’s Republic of China (the PRC), dated February 26, 2015 (Singamas Verification Report).

⁹ *See* Memorandum to Ronald K. Lorentzen, Acting Assistant Secretary for Enforcement and Compliance, from Christian Marsh, Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations, regarding “53-Foot Domestic Dry Containers from the People’s Republic of China: Issues and Decision Memorandum for the Final Determination of Sales at Less than Fair Value,” dated concurrently with this notice (Issues and Decision Memorandum).

¹⁰ *See* the Issues and Decision Memorandum at section, “Scope of the Investigation.”

Combination Rates

In the *Initiation Notice*, the Department stated that it would calculate combination rates for the respondents that are eligible for a separate rate in this investigation.¹³

Policy Bulletin 05.1 sets forth this practice.¹⁴

Final Determination

The Department determines that the following estimated weighted-average

dumping margins exist for the period October 1, 2013, through March 31, 2014:

Exporter	Producer	Weighted-average dumping margin (percent)
Hui Zhou Pacific Container Co., Ltd./Qingdao Pacific Container Co., Ltd./Qidong Singamas Energy Equipment Co., Ltd./Singamas Management Services Limited	Hui Zhou Pacific Container Co., Ltd./Qingdao Pacific Container Co., Ltd./Qidong Singamas Energy Equipment Co., Ltd.	111.22
PRC-Wide Entity ¹⁵		107.19

Disclosure

We intend to disclose to parties the calculations performed in this proceeding within five days of any public announcement of this notice in accordance with 19 CFR 351.224(b).

Final Negative Determination of Critical Circumstances

No parties made any comments on our critical circumstances analysis announced in the *Preliminary Determination*, which is hereby adopted by this notice. In the *Preliminary Determination*, the Department stated that it did not preliminarily find critical circumstances because Petitioner did not allege that there has been a history of dumping and material injury pursuant to section 733(e)(1)(A)(i) of the Act and did not provide any evidence that importers knew or should have known that there was likely to be material injury by reason of such sales in a situation where the U.S. industry has not been established.¹⁶ Thus, pursuant to 735(a)(3) of the Act, we continue to find that critical circumstances do not exist with respect to imports of domestic dry containers from the PRC from Singamas and the company covered by the PRC-wide rate.

Continuation of Suspension of Liquidation

In accordance with section 735(c)(1)(B) of the Act, we will instruct

U.S. Customs and Border Protection (CBP) to continue to suspend liquidation of all appropriate entries of domestic dry containers from the PRC, as described in the "Scope of the Investigation" section of this notice and which were entered, or withdrawn from warehouse, for consumption on or after November 26, 2014, the date of publication of the *Preliminary Determination* in the **Federal Register**.

Pursuant to 19 CFR 351.205(d), we will instruct CBP to require a cash deposit¹⁷ for all suspended entries at an *ad valorem* rate equal to the weighted-average amount by which normal value exceeds U.S. price, adjusted where appropriate for export subsidies and estimated domestic subsidy pass-through,¹⁸ as follows: (1) The cash deposit rate for the exporter/producer combination listed in the table above will be the rate identified for that combination in the table; (2) for all combinations of PRC exporters/producers of merchandise under consideration that have not received their own separate rate above, the cash-deposit rate will be the cash deposit rate established for the PRC-wide entity, 107.19 percent; and (3) for all non-PRC exporters of the merchandise under consideration which have not received their own separate rate above, the cash-deposit rate will be the cash deposit rate applicable to the PRC exporter/producer combination that supplied that non-PRC

exporter. These suspension of liquidation and cash deposit instructions will remain in effect until further notice.

Furthermore, as stated above and consistent with our practice, we will instruct CBP to require a cash deposit equal to the amount by which the normal value exceeds export price or constructed export price, less the amount of any countervailing duty (CVD) determined to constitute an export subsidy. With respect to the PRC-wide entity (which is based on CIMC's data), export subsidies constitute 11.67 percent of CIMC's final calculated CVD rate in the companion CVD investigation. Therefore, we will offset the PRC-wide rate of 107.19 percent by the CVD rate attributable to export subsidies (*i.e.*, 11.67 percent) to calculate the final PRC-wide entity cash deposit rate for this LTFV investigation.¹⁹ With respect to Singamas, export subsidies constitute 10.54 percent of Singamas's final calculated CVD rate in the companion CVD investigation. Therefore, we will offset Singamas's rate of 111.22 percent by the CVD rate attributable to export subsidies (*i.e.*, 10.54 percent) to calculate the final Singamas cash deposit rate for this LTFV investigation.²⁰

We are also adjusting the preliminary cash deposit rate for estimated domestic subsidy pass-through for Singamas (*i.e.*,

Qingdao Pacific Container Co., Ltd. (QPCL), Qidong Singamas Energy Equipment Co., Ltd. (QSCL), and Singamas Management Services Limited (SMSL) and their holding company Singamas Container Holdings Limited (collectively, Singamas), dated April 10, 2015.

¹³ See *53-Foot Domestic Dry Containers From the People's Republic of China: Initiation of Antidumping Duty Investigations*, 79 FR 28674, 28683 (May 19, 2014) (*Initiation Notice*).

¹⁴ See Enforcement and Compliance Policy Bulletin No. 05.1 "Separate-Rates Practice and Application of Combination Rates in Antidumping Investigations Involving Non-Market Economy Countries," (April 5, 2005) (Policy Bulletin 05.1),

available on the Department's Web site at <http://enforcement.trade.gov/policy/bull05-1.pdf>.

¹⁵ As detailed in the Issues and Decision Memorandum, we continue to find that CIMC did not demonstrate that it is entitled to a separate rate, and we consider CIMC to be the PRC-Wide Entity.

¹⁶ See *Preliminary Determination*, Preliminary Determination Memorandum at 27–28.

¹⁷ See *Modification of Regulations Regarding the Practice of Accepting Bonds During the Provisional Measures Period in Antidumping and Countervailing Duty Investigations*, 76 FR 61042 (October 3, 2011).

¹⁸ See sections 772(c)(1)(C) and 777A(f) of the Act, respectively. Unlike in administrative reviews, the Department calculates the adjustment for export

subsidies in investigations not in the margin-calculation program, but in the cash-deposit instructions issued to CBP. See *Notice of Final Determination of Sales at Less than Fair Value, and Negative Determination of Critical Circumstances: Certain Lined Paper Products from India*, 71 FR 45012 (August 8, 2006), and accompanying Issues and Decision memorandum at Comment 1.

¹⁹ See *53-Foot Domestic Dry Containers from the People's Republic of China: Final Affirmative Countervailing Duty Determination and accompanying Issues and Decision Memorandum*. The final determination in this companion CVD proceeding is being concurrently released on the same day as this final determination.

²⁰ *Id.*

5.87 percent). However, we are not adjusting the PRC-wide entity final determination rate for estimated domestic subsidy pass-through because we have no basis upon which to make such an adjustment.

International Trade Commission Notification

In accordance with section 735(d) of the Act, we notified the International Trade Commission (ITC) of the final affirmative determination of sales at less than fair value. Because the final determination in this proceeding is affirmative, the ITC will make its final determination, in accordance with section 735(b)(2) of the Act, as to whether the domestic industry in the United States is materially injured, threatened with material injury, or the establishment of an industry in the United States is materially retarded by reason of imports of domestic dry containers from the PRC no later than 45 days after our final determination. If the ITC determines that material injury, threat of material injury, or material retardation, does not exist, this proceeding will be terminated and all securities posted will be refunded or canceled. If the ITC determines that such injury or material retardation does exist, then the Department will issue an antidumping duty order directing CBP to assess, upon further instruction by the Department, antidumping duties on all imports of the subject merchandise entered, or withdrawn from warehouse, for consumption on or after the effective date of the suspension of liquidation. We are making available to the ITC all non-privileged and non-proprietary information related to this investigation. We will allow the ITC access to all privileged and business proprietary information in our files, provided the ITC confirms that it will not disclose such information, either publicly or under an administrative protective order (APO), without the written consent of the Assistant Secretary for Enforcement and Compliance.

Notification Regarding Administrative Protective Orders

This notice also serves as a reminder to parties subject to administrative protective orders (APOs) of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 351.305(a)(3). Timely written notification of the return or destruction of APO materials, or conversion to judicial protective order, is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

This determination and notice are issued and published pursuant to sections 735(d) and 777(i)(1) of the Act.

Dated: April 10, 2015.

Ronald K. Lorentzen,

Acting Assistant Secretary for Enforcement and Compliance.

Appendix I

List of Topics Discussed in the Issues and Decision Memorandum

- I. Summary
- II. List of Issues
- III. Background
- IV. Scope of the Investigation
- V. Period of Investigation
- VI. Use of Facts Otherwise Available and Adverse Inferences
- VII. Changes Since the *Amended Preliminary Determination*
- VIII. Discussion of Interested Party Comments

A. General Issues

- Comment 1: Scope Exclusion Request
 Comment 2: Surrogate Value for Ocean Freight
 Comment 3: Surrogate Value for "Wood Flooring—Other"
 Comment 4: Whether to Deduct Return Transportation Costs for Wide-Top Pick (WTP) Lift-Off Bars from U.S. Net Price

B. CIMC-Specific Issues

- Comment 5: Proper Valuation of Ocean Freight and Brokerage and Handling Expenses
 Comment 6: Alleged Unreported U.S. Brokerage and Handling Expenses
 Comment 7: Capping of Ocean Freight Revenue by Ocean Freight Expense
 Comment 8: Surrogate Value for Corner Castings
 Comment 9: Incorrect Calculation of CIMC's "Wood Flooring—Other" Surrogate Value
 Comment 10: Separate Rate Determination

C. Singamas-Specific Issues

- Comment 11: Surrogate Value for Hinges
 Comment 12: Steel Coil Factor-of-Production (FOP) Should Be Increased to Account for Yield Loss

VII. Conclusion

Appendix II

Scope of the Investigation

The merchandise subject to investigation is closed (*i.e.*, not open top) van containers exceeding 14.63 meters (48 feet) but generally measuring 16.154 meters (53 feet) in exterior length, which are designed for the intermodal transport²¹ of goods other than bulk liquids within North America primarily by rail or by road vehicle, or by a combination of rail and road vehicle (domestic containers). The merchandise is known in the industry by varying terms including "53-foot containers," "53-foot dry containers," "53-foot domestic

²¹ "Intermodal transport" refers to a movement of freight using more than one mode of transportation, most commonly on a container chassis for on-the-road transportation and on a rail car for rail transportation.

dry containers," "domestic dry containers" and "domestic containers." These terms all describe the same article with the same design and performance characteristics. Notwithstanding the particular terminology used to describe the merchandise, all merchandise that meets the definition set forth herein is included within the scope of this investigation.

Domestic containers generally meet the characteristic for closed van containers for domestic intermodal service as described in the American Association of Railroads (AAR) Manual of Standards and Recommended Practices Intermodal Equipment Manual Closed Van Containers for Domestic Intermodal Service Specification M 930 Adopted: 1972; Last Revised 2013 (AAR Specifications) for 53-foot and 53-foot high cube containers. The AAR Specifications generally define design, performance and testing requirements for closed van containers, but are not dispositive for purposes of defining subject merchandise within this scope definition. Containers which may not fall precisely within the AAR Specifications or any successor equivalent specifications are included within the scope definition of the subject merchandise if they have the exterior dimensions referenced below, are suitable for use in intermodal transportation, are capable of and suitable for double-stacking²² in intermodal transportation, and otherwise meet the scope definition for the subject merchandise.

Domestic containers have the following actual exterior dimensions: An exterior length exceeding 14.63 meters (48 feet) but not exceeding 16.154 meters (53 feet); an exterior width of between 2.438 meters and 2.60 meters (between 8 feet and 8 feet 6³/₈ inches); and an exterior height of between 2.438 meters and 2.908 meters (between 8 feet and 9 feet 6¹/₂ inches), all subject to tolerances as allowed by the AAR Specifications. In addition to two frames (one at either end of the container), the domestic containers within the scope definition have two stacking frames located equidistant from each end of the container, as required by the AAR Specifications. The stacking frames have four upper handling fittings and four bottom dual aperture handling fittings, placed at the respective corners of the stacking frames. Domestic containers also have two forward facing fittings at the front lower corners and two downward facing fittings at the rear lower corners of the container to facilitate chassis interface.

All domestic containers as described herein are included within this scope definition, regardless of whether the merchandise enters the United States in a final, assembled condition, or as an unassembled kit or substantially complete domestic container which requires additional manipulation or processing after entry into the United States to be made ready for use as a domestic container.

The scope of this investigation excludes the following items: (1) Refrigerated containers; (2) trailers, where the cargo box

²² "Double-stacking" refers to two levels of intermodal containers on a rail car, one on top of the other.

and rear wheeled chassis are of integrated construction, and the cargo box of the unit may not be separated from the chassis for further intermodal transport; (3) container chassis, whether or not imported with domestic containers, but the domestic containers remain subject merchandise, to the extent they meet the written description of the scope. Imports of the subject merchandise are provided for under subheading 8609.00.0000 of the Harmonized Tariff Schedule of the United States (HTSUS). Imports of the subject merchandise which meet the definition of and requirements for “instruments of international traffic” pursuant to 19 U.S.C. 1322 and 19 CFR 10.41a may be classified under subheading 9803.00.50, HTSUS. While HTSUS subheadings are provided for convenience and customs purposes, the written description of the subject merchandise as set forth herein is dispositive.

[FR Doc. 2015-08903 Filed 4-16-15; 8:45 am]

BILLING CODE 3510-DS-P

DEPARTMENT OF COMMERCE

International Trade Administration

[A-570-018]

Boltless Steel Shelving Units Prepackaged for Sale From the People’s Republic of China: Amended Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination

AGENCY: Enforcement and Compliance, International Trade Administration, Commerce.

SUMMARY: On April 1, 2015, the Department of Commerce (“Department”) published the *Preliminary Determination* of sales at less than fair value (“LTFV”) in the antidumping duty investigation of boltless steel shelving units prepackaged for sale (“boltless steel shelving”) from the People’s Republic of China (“PRC”).¹ We are amending our *Preliminary Determination* to correct a ministerial error with respect to the identification of companies receiving a separate rate. Specifically, we are amending the *Preliminary Determination* to grant a separate rate to HoiFat (NingBo) Office Facilities Co., Ltd. (“HoiFat”).

DATES: *Effective:* April 1, 2015.

FOR FURTHER INFORMATION CONTACT: Kabir Archuletta, AD/CVD Operations, Office V, Enforcement and Compliance, International Trade Administration,

¹ See *Boltless Steel Shelving Units Prepackaged for Sale from the People’s Republic of China: Preliminary Determination of Sales at Less than Fair Value*, 80 FR 17409 (April 1, 2015) (“*Preliminary Determination*”).

U.S. Department of Commerce, 14th Street and Constitution Avenue NW., Washington, DC 20230; telephone: (202) 482-2593.

SUPPLEMENTARY INFORMATION: As noted above, on April 1, 2015, the Department published in the *Federal Register* the *Preliminary Determination* that boltless steel shelving from the PRC is being, or is likely to be, sold in the United States at LTFV, as provided in section 733 of the Tariff Act of 1930, as amended (“Act”).² On March 30, 2015, HoiFat filed timely allegations of ministerial errors contained in the Department’s *Preliminary Determination*.³

Period of Investigation

The period of investigation (“POI”) is January 1, 2014, through June 30, 2014.⁴

Scope of Investigation

The scope of this investigation covers boltless steel shelving units prepackaged for sale, with or without decks (“boltless steel shelving”). The term “prepackaged for sale” means that, at a minimum, the steel vertical supports (*i.e.*, uprights and posts) and steel horizontal supports (*i.e.*, beams, braces) necessary to assemble a completed shelving unit (with or without decks) are packaged together for ultimate purchase by the end-user. Subject boltless steel shelving enters the United States through Harmonized Tariff Schedule of the United States (“HTSUS”) statistical subheadings 9403.20.0018 and 9403.20.0020, but may also enter through HTSUS 9403.10.0040. While HTSUS subheadings are provided for convenience and customs purposes, the written description of the scope of this investigation is dispositive.⁵

Significant Ministerial Error

Pursuant to 19 CFR 351.224(e) and (g)(1), the Department is amending the *Preliminary Determination* to reflect the correction of a significant ministerial error it made in the margin assigned to HoiFat, a separate rate applicant. A ministerial error is defined as errors in addition, subtraction, or other

² See *Preliminary Determination*.

³ See Letter to the Secretary of Commerce from HoiFat “Ministerial Error Comment” (March 30, 2015) (“HoiFat Ministerial Comment”).

⁴ See 19 CFR 351.204(b)(1).

⁵ For a complete description of the scope of the investigation, see Memorandum from Kabir Archuletta, Senior International Trade Analyst, Office V, to Christian Marsh, Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations, “Antidumping Duty Investigation of Boltless Steel Shelving Units Prepackaged for Sale from the People’s Republic of China: Analysis of Ministerial Error Allegation,” which is dated concurrently with and hereby adopted by this notice.

arithmetic function, clerical error resulting from inaccurate copying, duplication, or the like, and any other similar type of unintentional error which the Secretary considers ministerial.⁶ A significant ministerial error is defined as a ministerial error, the correction of which, singly or in combination with other errors, would result in (1) a change of at least five absolute percentage points in, but not less than 25 percent of, the weighted-average dumping margin calculated in the original (erroneous) preliminary determination, or (2) a difference between a weighted-average dumping margin of zero or *de minimis* and a weighted-average dumping margin of greater than *de minimis* or vice versa.⁷ As a result of this amended preliminary determination, we have added HoiFat to the list of exporters that received a separate rate.⁸

Ministerial Error Allegations

On March 30, 2015, HoiFat, a separate rate applicant,⁹ submitted a ministerial error allegation claiming that although HoiFat filed a quantity and value response and a separate rate application in this investigation, its separate rate status was not analyzed and it was not named in the *Preliminary Determination* as one of the exporters receiving a separate rate.¹⁰ The Department reviewed the record and agrees that this constitutes a significant ministerial error within the meaning of 19 CFR 351.224(g). In its SRA, HoiFat submitted information supporting a preliminary finding of an absence of *de jure* and *de facto* government control.¹¹ Accordingly, we preliminarily determine that HoiFat is eligible for a separate rate, because the failure to conduct a separate rate analysis was an unintentional error. Further, this error was significant because HoiFat’s margin increased from the separate rate of 52.23 to the PRC-wide rate of 112.68 as a result of this error, thus exceeding the significant error threshold because a correction of this error results in a change of at least five absolute percentage points.

The collection of cash deposits and suspension of liquidation will be revised accordingly in accordance with

⁶ See section 735(e) of the Act.

⁷ See 19 CFR 351.224(g).

⁸ See the “Amended Preliminary Determination” section below.

⁹ See Letter to the Secretary of Commerce from HoiFat “Separate Rate Application” (November 21, 2014) (“SRA”).

¹⁰ See HoiFat Ministerial Comment.

¹¹ See Letter to the Secretary of Commerce from HoiFat “Separate Rate Application” (November 21, 2014) at 5-15 and Exhibits 3-14.

section 733(d) and (f) of the Act and 19 CFR 351.224. Because the amended rate for Hoifat results in a reduced cash deposit rate, the rate for Hoifat will be effective retroactively to April 1, 2015,

the date of publication of the *Preliminary Determination*.

Amended Preliminary Determination

As a result of this amended preliminary determination, we have

revised the preliminary estimated weighted-average dumping margin for Hoifat as follows:

Exporter	Producer	Weighted-average margin (percent)
Zhongda United Holding Group Co., Ltd	Jiaxing Zhongda Metalwork Co., Ltd	22.64
Jiaxing Zhongda Import & Export Co., Ltd	Jiaxing Zhongda Metalwork Co., Ltd	22.64
Nanjing Topsun Racking Manufacturing Co., Ltd	Nanjing Topsun Racking Manufacturing Co., Ltd	85.26
Ningbo ETDZ Huixing Trade Co., Ltd	Haifa (Ningbo) Office Equipment Co., Ltd	50.23
Ningbo ETDZ Huixing Trade Co., Ltd	Ningbo Decko Metal Products Trade Co., Ltd	50.23
Ningbo ETDZ Huixing Trade Co., Ltd	Lianfa Metal Product Co., Ltd	50.23
Meridian International Co., Ltd	Zhejiang Limai Metal Products Co. Ltd	50.23
Zhejiang Limai Metal Products Co., Ltd	Zhejiang Limai Metal Products Co., Ltd	50.23
HoiFat (NingBo) Office Facilities Co., Ltd	HoiFat (NingBo) Office Facilities Co., Ltd	50.23
PRC-Wide Entity .....	.....	112.68

Postponement of the Final Determination

In the *Preliminary Determination*, the Department stated that it would make its final determination for this antidumping duty investigation no later than 75 days after the preliminary determination.

Section 735(a)(2) of the Tariff Act of 1930 (“the Act”) provides that a final determination may be postponed until not later than 135 days after the date of the publication of the preliminary determination if, in the event of an affirmative determination, a request for such postponement is made by exporters who account for a significant proportion of exports of the subject merchandise, or in the event of a negative preliminary determination, a request for such postponement is made by petitioner. In addition, section 351.210(e)(2) of the Department’s regulations require that requests by respondents for postponement of a final determination be accompanied by a request for extension of provisional measures from a four month period to not more than six months.

On April 7, 2015, Zhongda United Holding Group Co., Ltd., one of the two mandatory respondents in this investigation, requested a 60-day extension of the final determination and extension of the provisional measures. Thus, because our amended preliminary determination is affirmative, and the respondent requesting a postponement of the final determination and an extension of the provisional measures accounts for a significant proportion of exports of boltless steel shelving, and no compelling reasons for denial exist, we are postponing the deadline for the final determination by 60 days until August 14, 2015, based on the publication date of the

Preliminary Determination

International Trade Commission Notification

In accordance with section 733(f) of the Act, we notified the International Trade Commission of our amended preliminary determination.

This amended preliminary determination is issued and published in accordance with sections 733(f) and 777(i)(1) of the Act and 19 CFR 351.224(e).

Dated: April 10, 2015.

Ronald K. Lorentzen,

Acting Assistant Secretary for Enforcement and Compliance.

[FR Doc. 2015–08898 Filed 4–16–15; 8:45 am]

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DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–822]

Helical Spring Lock Washers From the People’s Republic of China: Amended Final Results of Antidumping Duty Administrative Review; 2012–2013

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The Department of Commerce (Department) is amending the final results of the administrative review of the antidumping duty order on certain helical spring lock washers (HSLW) from the People’s Republic of China (PRC) ¹ to correct a ministerial error.

¹ See *Helical Spring Lock Washers from the People’s Republic of China: Final Results of Antidumping Duty Administrative Review; 2012–2013*, 80 FR 13833 (March 17, 2015) (*Final Results*) and accompanying “Issues and Decision Memorandum for the Final Results of Antidumping

The period of review (POR) is October 1, 2012, through September 30, 2013.

DATES: *Effective Date:* April 17, 2015.

FOR FURTHER INFORMATION CONTACT: Sergio Ballbontin, AD/CVD Operations, Office I, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue NW., Washington, DC 20230; telephone 202–482–6478.

SUPPLEMENTARY INFORMATION:

Background

On March 9, 2015, the Department disclosed to interested parties its calculations for the *Final Results*.² On March 16, 2015 we received a ministerial error allegation from Jiangsu RC Import & Export Co., Ltd. (Jiangsu RC).³

Scope of the Order

The merchandise subject to the order are HSLWs. The product is currently classified under subheading 7318.21.0000, 7318.21.0030, and 7318.21.0090 of the Harmonized Tariff Schedule of the United States (HTSUS). Although the HTSUS subheadings are provided for convenience and customs purposes, the written product description is dispositive. A full description of the scope of the order is

Duty Administrative Review: Helical Spring Lock Washers from the People’s Republic of China; 2012–2013” (Issues and Decision Memorandum).

² See Memorandum, “Final Results of the Eighteenth Administrative Review of Helical Spring Lock Washers from the People’s Republic of China: Analysis of the Preliminary Results Margin Calculation for Jiangsu RC Import & Export Co., Ltd.” dated March 9, 2015 (Calculation Memorandum).

³ See letter from Jiangsu RC, “RC Final Results Ministerial Error Comments: Antidumping Duty Order on Helical Spring Lock Washers from the People’s Republic of China” dated March 16, 2015.

contained in the Issues and Decision Memorandum.⁴

Ministerial Error

Section 751(h) of the Tariff Act of 1930, as amended (Act), and 19 CFR 351.224(f) define a “ministerial error” as an error “in addition, subtraction, or other arithmetic function, clerical error resulting from inaccurate copying, duplication, or the like, and any similar type of unintentional error which the Secretary considers ministerial.” We have analyzed Jiangsu RC’s ministerial error comments and have determined, in accordance with section 751(h) of the Act and 19 CFR 351.224(e), that we made ministerial errors in our calculations for the *Final Results*. For the *Final Results*, the Department identified and valued five labor inputs to use in calculating the surrogate value for Jiangsu RC.⁵ In calculating the surrogate value, the Department inadvertently double-counted two of these five labor inputs.⁶

In accordance with section 751(h) of the Act and 19 CFR 351.224(e), we are amending the *Final Results*. The revised weighted-average dumping margins are detailed below.

Amended Final Results of Review

As a result of correcting this ministerial error, we determine that the following weighted-average dumping margins exist for the POR:⁷

Exporter	Weighted-average dumping margin (percent)
Jiangsu RC Import & Export Co., Ltd	189.81
PRC-wide Rate	189.81

Disclosure

We will disclose the calculations performed for these amended final results to interested parties within five days of the date of publication of this notice in accordance with 19 CFR 351.224(b).

Assessment Rates

Pursuant to section 751(a)(2)(A) of the Act and 19 CFR 351.212(b), the Department shall determine, and U.S.

Customs and Border Protection (CBP) shall assess, antidumping duties on all appropriate entries covered by this review. For customers or importers of Jiangsu RC for which we do not have entered value, we calculated customer-/importer-specific antidumping duty assessment amounts based on the ratio of the total amount of dumping duties calculated for the examined sales of subject merchandise to the total sales quantity of those same sales. For customers or importers of Jiangsu RC for which we received entered-value information, we have calculated customer/importer-specific antidumping duty assessment rates based on customer/importer-specific ad valorem rates in accordance with 19 CFR 351.212(b)(1).

The Department announced a refinement to its assessment practice in NME cases. Pursuant to this refinement in practice, for entries that were not reported in the U.S. sales databases submitted by companies individually examined during this review, including, in this case, Suzhou Guoxin Group Wang Shun Imp. and Exp. Co., Ltd. (Guoxin) and Winnsen Industry Co., Ltd. (Winnsen), the Department will instruct CBP to liquidate such entries at the revised PRC-wide rate of 189.81 percent.⁸ In addition, for companies for which the Department determined that the exporter under review had no shipments of the subject merchandise, any suspended entries that entered under that exporter’s case number (*i.e.*, at that exporter’s rate) will be liquidated at the PRC-wide rate. We intend to issue assessment instructions to CBP 15 days after the date of publication of these amended final results of review.

Notification

This notice serves as a final reminder to importers of their responsibility under 19 CFR 351.402(f)(2) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in the Secretary’s presumption that reimbursement of the antidumping duties occurred and the subsequent assessment of double antidumping duties.

This notice also serves as the only reminder to parties subject to administrative protective order (APO) of their responsibility concerning the return or destruction of proprietary

⁸The Department determined that Guoxin is not eligible for a separate rate and that Winnsen, whose request for a review was timely withdrawn, had not been assigned a separate rate.

information disclosed under APO in accordance with 19 CFR 351.305(a)(3). Timely written notification of the return or destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and terms of an APO is a sanctionable violation.

These amended final results of review are issued and published in accordance with section 751(h) of the Tariff Act of 1930 Act and 19 CFR 351.224(f).

Dated: April 10, 2015.

Ronald K. Lorentzen,

Acting Assistant Secretary for Enforcement and Compliance.

[FR Doc. 2015-08894 Filed 4-16-15; 8:45 am]

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DEPARTMENT OF COMMERCE

International Trade Administration

[C-570-015]

53-Foot Domestic Dry Containers From the People’s Republic of China: Final Affirmative Countervailing Duty Determination

AGENCY: Enforcement and Compliance, International Trade Administration, Commerce.

SUMMARY: The Department of Commerce (the Department) determines that countervailable subsidies are being provided to producers and exporters of 53-foot domestic dry containers (domestic dry containers) from the People’s Republic of China (PRC) as provided in section 705 of the Tariff Act of 1930, as amended (the Act). For information on the estimated subsidy rates, see the “Final Determination” section of this notice.

DATES: *Effective:* April 17, 2015.

FOR FURTHER INFORMATION CONTACT: Yasmin Nair, David Cordell (Singamas), or Ilissa Shefferman (CIMC), AD/CVD Operations, Office VI, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue NW., Washington, DC 20230; telephone (202) 482-3813, (202) 482-0408 or (202) 482-4684, respectively.

SUPPLEMENTARY INFORMATION:

Background

On September 29, 2014, the Department published the preliminary determination of the countervailing duty (CVD) investigation of domestic dry containers from the PRC in the **Federal Register**.¹ On September 30,

¹ See *Countervailing Duty Investigation of 53-Foot Domestic Dry Containers from the People’s*

⁴ See Issues and Decision Memorandum.

⁵ See Calculation Memorandum at Attachment I.

⁶ *Id.*

⁷ See memoranda, “Decision Memorandum for the Amended Final Results of Antidumping Duty Administrative Review; 2012–2013” and “Calculation Memorandum for the Amended Final Results of Antidumping Duty Administrative Review; 2012–2013” dated concurrently with this Notice.

2014, China International Marine Containers (Group) Co., Ltd., Guangdong Xinhui CIMC Special Transportation Equipment Co., Ltd., Nantong CIMC-Special Transportation Equipment Manufacture Co., Ltd., Qingdao CIMC Container Manufacture Co., Ltd., Xinhui CIMC Wood Co., Ltd., and Xinhui CIMC Container Co., Ltd. (collectively "CIMC") submitted ministerial error comments regarding the *Preliminary Determination*. On October 9, 2014, the Department responded to these comments, stating that the issues raised by CIMC were methodological in nature and did not constitute ministerial errors within the meaning of the Department's regulations.²

On November 6, 2014, the Department issued a post-preliminary analysis with respect to CIMC, as well as Hui Zhou Pacific Container Co., Ltd., Qingdao Pacific Container Co., Ltd., and Qidong Singamas Energy Equipment Co., Ltd. (collectively, "Singamas").³

Between November 12, 2014 and November 19, 2014, the Department conducted onsite verification of CIMC's, Singamas's and the Government of the People's Republic of China's (GOC) questionnaire responses.⁴

Republic of China: Preliminary Determination and Alignment of Final Determination with Final Antidumping Duty Determination, 79 FR 58320 (September 29, 2014) (*Preliminary Determination*) and accompanying Preliminary Decision Memorandum.

² See Memorandum to Richard Weible, Director, Office VI, AD/CVD Operations, Enforcement and Compliance, "Countervailing Duty Investigation of 53-Foot Domestic Dry Containers from the People's Republic of China: Allegation of a Ministerial Error in the Preliminary Determination," dated October 9, 2014, at 3.

³ See Memorandum to Ronald K. Lorentzen, Acting Assistant Secretary for Enforcement and Compliance, "Countervailing Duty (CVD) Investigation of 53-Foot Domestic Dry Containers from the People's Republic of China (PRC): Post-Preliminary Analysis Memorandum," dated November 6, 2014.

⁴ See Memoranda to Richard Weible, Director, Office VI, AD/CVD Operations, Enforcement and Compliance, entitled "Countervailing Duty Investigation of 53-Foot Domestic Dry Containers from the People's Republic of China (PRC): Verification Report of China International Marine Containers (Group) Co., Ltd. (CIMC Group) and its cross-owned affiliates CIMC Containers Holding Co., Ltd. (CIMC Holding); CIMC Wood Development Co., Ltd. (CIMC Wood); Guangdong Xinhui CIMC Special Transportation Equipment Co., Ltd. (Xinhui Special); Qingdao CIMC Containers Manufacture Co., Ltd. (Qingdao CIMC); Nantong CIMC-Special Transportation Equipment Manufacture Co., Ltd. (Nantong CIMC); Xinhui CIMC Container Co., Ltd. (Xinhui Container); and Xinhui CIMC Wood Co., Ltd. (Xinhui Wood) (collectively, CIMC)," dated January 14, 2015; "Countervailing Duty Investigation of 53-Foot Domestic Dry Containers from the People's Republic of China (PRC): Verification Report of Hui Zhou Pacific Container Co., Ltd. (HPCL), Qingdao Pacific Container Co., Ltd., (QPCL) and Qidong Singamas Energy Equipment Co., Ltd., (QJCL) and their holding

On February 6, 2015, CIMC, Singamas and its holding company, Singamas Container Holdings Limited (Singamas Holding); the GOC; Petitioner; and Crowley Maritime Corporation and Crowley Liner Services, Inc. and Sea Star Line, LLC (hereafter, collectively, "Crowley") filed case briefs. On February 12, 2015, CIMC, Singamas, Singamas Holding, the GOC, Petitioner, Crowley, and J.B. Hunt Transport, Inc. (J.B. Hunt) timely filed rebuttal briefs. Pursuant to the Department's request, Crowley and Petitioner filed additional scope comments to the record of this proceeding.⁵

Period of Investigation

The period of investigation (POI) is January 1, 2013, through December 31, 2013.

Scope Comments

The Department received comments regarding the scope of this investigation from interested parties. As detailed in the accompanying Issues and Decision Memorandum,⁶ we have not made any changes to the scope.

Scope of the Investigation

The merchandise subject to investigation is closed (*i.e.*, not open top) van containers exceeding 14.63 meters (48 feet) but generally measuring 16.154 meters (53 feet) in exterior length, which are designed for the intermodal transport⁷ of goods other than bulk liquids within North America primarily by rail or by road vehicle, or by a combination of rail and road vehicle (domestic containers). Imports of the subject merchandise are provided for under subheading 8609.00.0000 of the Harmonized Tariff Schedule of the

company, Singamas Container Holdings Limited (SCHL) (collectively, "Singamas"), dated December 22, 2014; and "Countervailing Duty Investigation of 53-Foot Domestic Dry Containers from the People's Republic of China (PRC): Verification Report of the Government of the People's Republic of China (GOC)," dated December 22, 2014.

⁵ On April 2, 2015, the Department instructed all interested parties to this investigation that filed scope comments on the record of the companion AD investigation to file those comments and rebuttals on the record of this instant investigation.

⁶ See Memorandum from Christian Marsh, Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations, to Ronald K. Lorentzen, Acting Assistant Secretary for Enforcement and Compliance, "Countervailing Duty Investigation of 53-Foot Domestic Dry Containers from the People's Republic of China: Issues & Decision Memorandum for the Final Determination," dated concurrently with this notice (Issues and Decision Memorandum).

⁷ "Intermodal transport" refers to a movement of freight using more than one mode of transportation, most commonly on a container chassis for on-the-road transportation and on a rail car for rail transportation.

United States (HTSUS). Imports of the subject merchandise which meet the definition of and requirements for "instruments of international traffic" pursuant to 19 U.S.C. 1322 and 19 CFR 10.41a may be classified under subheading 9803.00.50, HTSUS. For a complete description of the scope of the investigation, see Appendix II to this notice.

Analysis of Subsidy Programs and Comments Received

The subsidy programs under investigation and the issues raised in the case and rebuttal briefs by parties in this investigation are discussed in the Issues and Decision Memorandum, which is hereby incorporated in, and adopted by, this notice.⁸ This memorandum also details the changes we made since the *Preliminary Determination* to the subsidy rates calculated for the mandatory respondents and all other producers/exporters. The Issues and Decision Memorandum is a public document and is on file electronically via Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at <http://access.trade.gov>, and is available to all parties in the Central Records Unit, Room 7046 of the main Department of Commerce building. In addition, a complete version of the Issues and Decision Memorandum can be accessed directly at <http://enforcement.trade.gov/frn/index.html>. The signed Issues and Decision Memorandum and the electronic version of the Issues and Decision Memorandum are identical in content. A list of the issues that parties have raised, and to which we responded in the Issues and Decision Memorandum, is attached to this notice as Appendix I.

Use of Facts Otherwise Available, Including Adverse Inferences

For purposes of this final determination, the Department relied, in part, on facts available and, because one or more respondents did not act to the best of their ability in responding to the Department's requests for information, drew an adverse inference where appropriate in selecting from among the facts otherwise available.⁹ For further information, see the section "Use of Facts Otherwise Available and Adverse Inferences," in the Issues and Decision Memorandum.

⁸ See Issues and Decision Memorandum.

⁹ See sections 776(a) and (b) of the Act.

Changes Since the Preliminary Determination

Based on our review and analysis of the comments received from parties, and minor corrections presented at verification, we made certain changes to CIMC's and Singamas's subsidy rate calculations since the *Preliminary Determination*. For a discussion of these changes, see the Issues and Decision Memorandum and the Final Analysis Memoranda, all dated concurrently with this notice.¹⁰

Final Determination

For each of the subsidy programs found countervailable, we determine that there is a subsidy, *i.e.*, a financial contribution and benefit within the meaning of section 771(5) of the Act, and that the subsidy is specific within the meaning of section 771(5A) of the Act. For further analysis, see the Issues and Decision Memorandum.

We determine the total estimated net countervailable subsidy rates to be:

Exporter/producer	Subsidy rate (%)
CIMC	28.00
Singamas	17.13
All-Others	22.57

Disclosure

We intend to disclose to parties the calculations performed in this proceeding within five days of the public announcement of this notice in accordance with 19 CFR 351.224(b).

Continuation of Suspension of Liquidation

As a result of our *Preliminary Determination*, and pursuant to section 703(d) of the Act, we instructed U.S. Customs and Border Protection (CBP) to suspend liquidation of all entries of domestic dry containers from the PRC that were entered or withdrawn from warehouse, for consumption on or after September 29, 2014, the date of publication of the *Preliminary Determination* in the **Federal Register**.¹¹ In accordance with section 703(d) of the

Act, we issued instructions to CBP to discontinue the suspension of liquidation for CVD purposes for subject merchandise entered, or withdrawn from warehouse, on or after January 27, 2015, but to continue the suspension of liquidation of all entries from September 29, 2014, through January 26, 2015.

In accordance with section 705(c)(1)(B)(i) of the Act, we calculated individual estimated countervailable subsidy rates for the individually-investigated producers/exporters of the subject merchandise, CIMC and Singamas. Section 705(c)(5)(A)(i) of the Act states that for companies not individually investigated, we will determine an "all-others" rate equal to the weighted average countervailable subsidy rates established for exporters and producers individually investigated, excluding any zero and *de minimis* countervailable rates, and any rates determined entirely under section 776 of the Act. As described above, neither of the mandatory respondents' subsidy rates was zero or *de minimis* or was calculated entirely under section 776 of the Act.

Notwithstanding the language of section 705(c)(5)(A)(i) of the Act, we have not calculated the "all-others" rate by weight averaging the rates of the two individually investigated respondents, because doing so risks disclosure of proprietary information. Therefore, for the "all-others" rate, we calculated a simple average of the rates of CIMC and Singamas.

International Trade Commission Notification

In accordance with section 705(d) of the Act, we will notify the U.S. International Trade Commission (ITC) of our final affirmative CVD determination. Because the final determination in this proceeding is affirmative, the ITC will make its final determination, in accordance with section 705(b)(2)(B) of the Act, as to whether the domestic industry in the United States is materially injured or threatened with material injury, or whether the establishment of an industry in the United States is materially retarded, by reason of imports of domestic dry containers from the PRC no later than 45 days after our final determination. If the ITC issues a final affirmative injury determination, we will issue a CVD order and reinstate the suspension of liquidation under section 706(a) of the Act, and will require a cash deposit of estimated CVDs for appropriate entries of merchandise in the amounts indicated above. If the ITC determines that material injury, threat of material

injury, or material retardation of the establishment of an industry does not exist, this proceeding will be terminated and all estimated duties deposited or securities posted as a result of the suspension of liquidation will be refunded or canceled. We are making available to the ITC all non-privileged and non-proprietary information related to this investigation. We will allow the ITC access to all privileged and business proprietary information in our files, provided the ITC confirms that it will not disclose such information, either publicly or under an administrative protective order (APO), without the written consent of the Assistant Secretary for Enforcement and Compliance.

Notification Regarding Administrative Protective Orders

This notice also serves as a reminder to parties subject to APOs of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 351.305(a)(3). Timely written notification of the return or destruction of APO materials, or conversion to judicial protective order, is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

This determination and notice are issued and published pursuant to sections 705(d) and 777(i) of the Act.

Dated: April 10, 2015.

Ronald K. Lorentzen,

Acting Assistant Secretary for Enforcement and Compliance.

Appendix I

List of Topics Discussed in the Issues and Decision Memorandum

- I. Summary
- II. Background
- III. Scope Comments
- IV. Scope of the Investigation
- V. Application of the Countervailing Duty Law to Importers From the PRC
- VI. Use of Facts Otherwise Available and Adverse Inferences
- VII. Analysis of Comments

CIMC Issues

- Comment 1: The Department should correct the Ad Valorem subsidy rate with respect to loans that CIMC received during the POI from the China Export-Import Bank
- Comment 2: Whether CIMC is a State owned enterprise (SOE) such that it could benefit from the loans to SOEs program
- Comment 3: Whether the CIMC Preferential Lending to SOEs loan program is specific
- Comment 4: Whether the Department should apply adverse facts available in calculating the benefit CIMC received under the preferential lending to SOEs program

¹⁰ See Memorandum to Angelica Townshend, Program Manager, from Ilissa Kabak Shefferman, International Trade Compliance Analyst, entitled "Countervailing Duty Investigation of 53-Foot Domestic Dry Containers (Domestic Dry Containers) from the People's Republic of China: Final Determination Calculations for CIMC," dated April 10, 2015; and Memorandum to Angelica Townshend, Program Manager, from David Cordell, International Trade Compliance Analyst, entitled "Countervailing Duty Investigation of 53-Foot Domestic Dry Containers (Domestic Dry Containers) from the People's Republic of China: Final Determination Calculations for Singamas," dated April 10, 2015.

¹¹ See *Preliminary Determination*, 79 FR at 58321.

Singamas Issues

Comment 5: The sales value to be used as denominators to calculate subsidy rates with respect to Singamas

Overlapping Issues

Comment 6: Hot-Rolled Steel Sheet and Plate Less than Adequate Remuneration (LTAR) and whether the Department should reverse its findings regarding the hot-rolled LTAR benchmark.

(A) Whether the Department should use domestic Chinese steel prices on the record to determine whether the GOC provided hot-rolled steel for LTAR.

(B) Whether the Department properly found that “authorities” provided a benefit in the form of the provision of a good for LTAR

(C) Whether the Department properly found “Specificity”

(D) Benchmarks and calculation of benefit

Comment 7: Export Buyer’s Credits Program

Comment 8: Scope Exclusion Request VIII. Recommendation

Appendix II**Scope of the Investigation**

The merchandise subject to investigation is closed (*i.e.*, not open top) van containers exceeding 14.63 meters (48 feet) but generally measuring 16.154 meters (53 feet) in exterior length, which are designed for the intermodal transport¹² of goods other than bulk liquids within North America primarily by rail or by road vehicle, or by a combination of rail and road vehicle (domestic containers). The merchandise is known in the industry by varying terms including “53-foot containers,” “53-foot dry containers,” “53-foot domestic dry containers,” “domestic dry containers” and “domestic containers.” These terms all describe the same article with the same design and performance characteristics. Notwithstanding the particular terminology used to describe the merchandise, all merchandise that meets the definition set forth herein is included within the scope of this investigation.

Domestic containers generally meet the characteristic for closed van containers for domestic intermodal service as described in the American Association of Railroads (AAR) Manual of Standards and Recommended Practices Intermodal Equipment Manual Closed Van Containers for Domestic Intermodal Service Specification M 930 Adopted: 1972; Last Revised 2013 (AAR Specifications) for 53-foot and 53-foot high cube containers. The AAR Specifications generally define design, performance and testing requirements for closed van containers, but are not dispositive for purposes of defining subject merchandise within this scope definition. Containers which may not fall precisely within the AAR Specifications or any successor equivalent specifications are included within the scope definition of the subject merchandise if they have the exterior dimensions referenced

¹² “Intermodal transport” refers to a movement of freight using more than one mode of transportation, most commonly on a container chassis for on-the-road transportation and on a rail car for rail transportation.

below, are suitable for use in intermodal transportation, are capable of and suitable for double-stacking¹³ in intermodal transportation, and otherwise meet the scope definition for the subject merchandise.

Domestic containers have the following actual exterior dimensions: An exterior length exceeding 14.63 meters (48 feet) but not exceeding 16.154 meters (53 feet); an exterior width of between 2.438 meters and 2.60 meters (between 8 feet and 8 feet 6³/₈ inches); and an exterior height of between 2.438 meters and 2.908 meters (between 8 feet and 9 feet 6¹/₂ inches), all subject to tolerances as allowed by the AAR Specifications. In addition to two frames (one at either end of the container), the domestic containers within the scope definition have two stacking frames located equidistant from each end of the container, as required by the AAR Specifications. The stacking frames have four upper handling fittings and four bottom dual aperture handling fittings, placed at the respective corners of the stacking frames. Domestic containers also have two forward facing fittings at the front lower corners and two downward facing fittings at the rear lower corners of the container to facilitate chassis interface.

All domestic containers as described herein are included within this scope definition, regardless of whether the merchandise enters the United States in a final, assembled condition, or as an unassembled kit or substantially complete domestic container which requires additional manipulation or processing after entry into the United States to be made ready for use as a domestic container.

The scope of this investigation excludes the following items: (1) Refrigerated containers; (2) trailers, where the cargo box and rear wheeled chassis are of integrated construction, and the cargo box of the unit may not be separated from the chassis for further intermodal transport; (3) container chassis, whether or not imported with domestic containers, but the domestic containers remain subject merchandise, to the extent they meet the written description of the scope. Imports of the subject merchandise are provided for under subheading 8609.00.0000 of the Harmonized Tariff Schedule of the United States (HTSUS). Imports of the subject merchandise which meet the definition of and requirements for “instruments of international traffic” pursuant to 19 U.S.C. 1322 and 19 CFR 10.41a may be classified under subheading 9803.00.50, HTSUS. While HTSUS subheadings are provided for convenience and customs purposes, the written description of the subject merchandise as set forth herein is dispositive.

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BILLING CODE 3510–DS–P

¹³ “Double-stacking” refers to two levels of intermodal containers on a rail car, one on top of the other.

DEPARTMENT OF COMMERCE**National Oceanic and Atmospheric Administration**

RIN 0648–XD789

Taking and Importing Marine Mammals; Taking Marine Mammals Incidental to U.S. Marine Corps Training Exercises at Brant Island Bombing Target and Piney Island Bombing Range, USMC Cherry Point Range Complex, North Carolina

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of issuance of a Letter of Authorization.

SUMMARY: In accordance with the Marine Mammal Protection Act (MMPA), as amended, and implementing regulations, notification is hereby given that a Letter of Authorization (LOA) has been issued to the U.S. Marine Corps (Marine Corps) to take marine mammals, by harassment, incidental to training operations at the Brant Island Bombing Target (BT–9) and Piney Island Bombing Range (BT–11) located within the Marine Corps’ Cherry Point Range Complex in Pamlico Sound, NC.

DATES: Effective from March 13, 2015, through March 12, 2020.

ADDRESSES: The LOA and supporting documentation may be obtained by writing to Jolie Harrison, Division Chief, Permits and Conservation Division, Office of Protected Resources, NMFS, 1315 East West-Highway, Silver Spring, MD 20910, calling the contact listed under **FOR FURTHER INFORMATION CONTACT**, or visiting the Internet at: <http://www.nmfs.noaa.gov/pr/permits/incidental/military.htm>. Documents cited in this notice may also be viewed, by appointment, during regular business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Jeannine Cody, Office of Protected Resources, NMFS, (301) 427–8401.

SUPPLEMENTARY INFORMATION:**Background**

Section 101(a)(5)(A) of the MMPA (16 U.S.C. 1361 *et seq.*) directs the Secretary of Commerce (Secretary) to allow, upon request, the incidental, but not intentional taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and regulations are issued. Under the MMPA, the term

“take” means to harass, hunt, capture, or kill or to attempt to harass, hunt, capture, or kill any marine mammal.

Authorization for incidental takings may be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for certain subsistence uses, and that the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such taking are set forth. NMFS has defined “negligible impact” in 50 CFR 216.103 as: “an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.”

The National Defense Authorization Act of 2004 (NDAA) (Pub. L. 108–136) removed the “small numbers” and “specified geographical region” limitations and amended the definition of “harassment” as it applies to a “military readiness activity” to read as follows (Section 3(18)(B) of the MMPA): “(i) Any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild [Level A Harassment]; or (ii) any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered [Level B Harassment].” Because the Marine Corps’ activities constitute military readiness activities, they are not subject to the small numbers or specified geographic region limitations.

NMFS issued regulations governing the take of one species of marine mammal, by Level A and Level B harassment, incidental to training activities on March 13, 2015. These regulations include mitigation, monitoring, and reporting requirements for the incidental take of marine mammals during the specified activities.

This LOA is effective from March 13, 2015, through March 12, 2020, and authorizes the incidental take of bottlenose dolphins that may result from the training exercises occurring at the BT–9 and BT–11 bombing targets located within the Marine Corps’ Cherry Point Range Complex in Pamlico Sound, NC.

The Marine Corps would conduct weapons delivery training exercises (air-to-surface and surface-to-surface) at the two water-based bombing targets located

within the Cherry Point Range Complex in North Carolina. The military readiness activities would occur between March 2015 and March 2020, year-round, day or night. The Marine Corps proposes to use small arms, large arms, bombs, rockets, grenades, and pyrotechnics for the air-to-surface and surface-to-surface training exercises, which qualify as military readiness activities. NMFS anticipates that take, by Level B (behavioral) and Level A harassment of individuals of Atlantic bottlenose dolphin (*Tursiops truncatus*) would result from the training exercises. The noise generated by the Marine Corps’ activities would result in the incidental harassment of bottlenose dolphins, both behaviorally and in terms of physiological (auditory) impacts.

Take of marine mammals will be minimized through the implementation of the following mitigation and monitoring measures:

- Required pre- and post-exercise monitoring of the training areas to detect the presence of marine mammals during training exercises.
- Required monitoring of the training areas during active training exercises with required suspensions/delays of training activities if a marine mammal enters within any of the designated mitigation zones.
- Required reporting of stranded or injured marine mammals in the vicinity of the BT–9 and BT–11 bombing targets located within the Marine Corps’ Cherry Point Range Complex in Pamlico Sound, North Carolina to the NMFS Marine Mammal Stranding Network.
- Required research on a real-time acoustic monitoring system to automate detection of bottlenose dolphins in the training areas.

Through this LOA, the Marine Corps is required to monitor for marine mammals and submit an annual report to NMFS by June 1, annually. The report will include data collected from the monitoring program. Additional information on the mitigation, monitoring, and reporting requirements can be found in the final rule (80 FR 13264, March 13, 2015). The Marine Corps is also required to submit a comprehensive report, which shall provide full documentation of methods, results, and interpretation of all monitoring during the period of effectiveness of this LOA.

This Authorization remains valid through March 12, 2020 provided the Marine Corps remains in conformance with the conditions of the regulations and the LOA, and the mitigation, monitoring, and reporting requirements

described in 50 CFR 218.240 through 218.249 and the LOA are implemented.

Dated: April 13, 2015.

Donna S. Wieting,

*Director, Office of Protected Resources,
National Marine Fisheries Service.*

[FR Doc. 2015–08841 Filed 4–16–15; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XD814

Takes of Marine Mammals Incidental to Specified Activities; Land Survey Activities Within the Eastern Aleutian Islands Archipelago, Alaska, 2015

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; proposed incidental harassment authorization; request for comments.

SUMMARY: NMFS has received an application from the Bureau of Land Management (BLM) to take marine mammals, by harassment incidental to conducting a one-day field-based land survey of cultural sites located on a small island within the eastern Aleutian Islands archipelago for a land claim made by an Alaska Regional Native Corporation under the Alaska Native Claims Settlement Act. The proposed date for this action would be on one day between the periods of June 1 through July 31, 2015. Per the Marine Mammal Protection Act, NMFS is requesting comments on the proposal to issue an Authorization to BLM to incidentally take, by Level B harassment only, one species of marine mammal during the specified activity.

DATES: NMFS must receive comments and information on or before May 18, 2015.

ADDRESSES: Address comments on the application to Jolie Harrison, Division Chief, Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910. The mailbox address for providing email comments is ITP.Cody@noaa.gov. Please include 0648–XD818 in the subject line. Comments sent via email to ITP.Cody@noaa.gov, including all attachments, must not exceed a 25-megabyte file size. NMFS is not responsible for email comments sent to addresses other than the one provided here.

Instructions: All submitted comments are a part of the public record and NMFS will post them to <http://www.nmfs.noaa.gov/pr/permits/incidental/research.htm> without change. All Personal Identifying Information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information or otherwise sensitive or protected information.

To obtain an electronic copy of the application containing a list of the references used in this document, write to the previously mentioned address, telephone the contact listed here (see **FOR FURTHER INFORMATION CONTACT**), or visit the Internet at: <http://www.nmfs.noaa.gov/pr/permits/incidental/research.htm>.

NMFS will prepare an environmental assessment (EA) in accordance with the National Environmental Policy Act to evaluate the environmental effects related to the scope of our Federal action, which is the proposed issuance of an Authorization to BLM for their proposed land survey activities. This notice presents detailed information on the scope of NMFS' Federal action under NEPA (*i.e.*, the proposed Authorization including mitigation measures and monitoring) and NMFS will consider comments submitted in response to this notice for the preparation the EA. Information in BLM's application and this notice collectively provide the environmental information related to proposed issuance of the Authorization for public review and comment.

FOR FURTHER INFORMATION CONTACT: Jeannine Cody, NMFS, Office of Protected Resources, NMFS (301) 427-8401.

SUPPLEMENTARY INFORMATION:

Background

Section 101(a)(5)(D) of the Marine Mammal Protection Act of 1972, as amended (MMPA; 16 U.S.C. 1361 *et seq.*) directs the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals of a species or population stock, by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if, after NMFS provides a notice of a proposed authorization to the public for review and comment: (1) NMFS makes certain findings; and (2) the taking is limited to harassment.

An Authorization shall be granted for the incidental taking of small numbers of marine mammals if NMFS finds that

the taking will have a negligible impact on the species or stock(s), and will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant). The Authorization must also set forth the permissible methods of taking; other means of effecting the least practicable adverse impact on the species or stock and its habitat; and requirements pertaining to the monitoring and reporting of such taking. NMFS has defined "negligible impact" in 50 CFR 216.103 as "an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

Except with respect to certain activities not pertinent here, the MMPA defines "harassment" as: Any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [Level B harassment].

Summary of Request

On September 8, 2014, NMFS received an application from BLM requesting that we issue an Authorization for the take of marine mammals, incidental to conducting one field-based land survey for a land claim of cultural sites located on a small island in the eastern Aleutian Islands archipelago. BLM must conduct the land survey under the Alaska Native Claims Settlement Act of 1971, as amended (ANCSA; 43 U.S.C. 1601-1624). NMFS determined the application complete and adequate on February 17, 2015.

BLM proposes to conduct one field-based land survey of a land claim made pursuant to section 14(h)(1) of the ANCSA by an Alaska Native Regional Corporation. The land survey may temporarily disturb Steller sea lions (*Eumetopias jubatus*) hauled out at the selected cultural site. BLM proposes to complete the land survey within one day between June 1 and July 31, 2015.

BLM would conduct the proposed activity within the vicinity of a major Steller sea lion haulout site identified in the regulations at 50 CFR 226.202 and the following aspects of the proposed activity would likely to result in the take of marine mammals: Noise generated by vessel approaches and departures; noise generated by

personnel while conducting the land survey; and human presence during the proposed activity. Thus, NMFS anticipates that take, by Level B harassment only of one species of marine mammal could result from the specified activity. NMFS anticipates that take by Level B Harassment only, of individuals of Steller sea lions only would result from the specified activity.

Description of the Specified Activity

Overview

BLM must conduct the land survey to support conveyance of existing cemetery sites and historical places to an Alaska Native Regional Corporation as required under the ANCSA. Once BLM concludes the survey no additional visits would be necessary for the proposed action.

Dates and Duration

BLM would complete the survey within one day (approximately 6-10 hours) between June 1 and July 31, 2015. Thus, the proposed Authorization, if issued, would be effective from June 1, 2015 through July 31, 2015. NMFS refers the reader to the Detailed Description of Activities section later in this notice for more information on the scope of the proposed activities.

Specified Geographic Region

BLM's application contains information on sensitive archaeological site locations prohibited from disclosure to the public under the National Historic Preservation Act of 1966, as amended. The island is small (less than 5 acres), extremely rugged, and uninhabited by people. This notice will describe the specified geographic region as cultural sites located on a small island in the eastern Aleutian Islands archipelago.

Detailed Description of Activities

BLM proposes to conduct the land survey with a small group of no more than four people who would use a global position system (GPS) unit to determine the locational accuracy of the selected cultural site. After selecting the placement location for the survey marker, BLM surveyors would use shovels, digging bars, and mallets to set a group of official U.S. survey markers into the ground. BLM does not plan to use any power tools to conduct the land survey.

BLM personnel would access the selected cultural sites using two types of boats: A mid-sized marine vessel (approximately 15 meters (m); 50 feet (ft) in length) and a small skiff. The main vessel would approach the remote island at a speed of approximately 8

knots (kt) (9.2 miles per hour) and would launch the skiff to cross the shallower waters immediately surrounding the small island in the eastern Aleutian Islands archipelago.

Once on land, surveyors would walk to the survey sites to conduct their activities. BLM does not propose to use any type of motorized vehicles on the small island.

There is a possibility that BLM would need to access the island by helicopter or sea plane, if they determine that accessing the island by sea would not be

feasible due to weather or scheduling constraints. However, the likelihood of BLM using this mode of transit is extremely low given the high expense involved with chartering aircraft.

Description of Marine Mammals in the Area of the Specified Activity

Table 1 in this notice provides the following information: All marine mammal species with possible or confirmed occurrence in the proposed survey areas on land; information on those species' regulatory status under

the MMPA and the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*); abundance; occurrence and seasonality in the activity area. NMFS refers the public the 2014 NMFS Marine Mammal Stock Assessment Report available online at: <http://www.nmfs.noaa.gov/pr/sars/species.htm> for further information on the biology and distribution of these species. Based on recent survey reports, there are no other species of marine mammals present in the action area (BLM, Pers. Comm.)

TABLE 1—GENERAL INFORMATION ON MARINE MAMMALS THAT COULD POTENTIALLY HAUL OUT IN THE PROPOSED CULTURAL SITE ON A SMALL ISLAND WITHIN THE EASTERN ALEUTIAN ISLANDS ARCHIPELAGO, JUNE THROUGH JULY, 2015

Species	Stock name	Regulatory status ^{1 2}	Stock/species abundance ³	Occurrence and range	Season
Steller sea lion (<i>Eumetopias jubatus</i>)	Western U.S.	MMPA–D, S ESA–T	82,516	common	Winter/Spring.
Steller sea lion (<i>Eumetopias jubatus</i>)	Eastern U.S.	MMPA–D, S ESA–DL	60,131–74,448	uncommon	Unknown.

¹ MMPA: D = Depleted, S = Strategic, NC = Not Classified.
² ESA: EN = Endangered, T = Threatened, DL = Delisted, NL = Not listed.
³ 2014 NMFS Stock Assessment Report (Allen and Angliss, 2015).

Western Distinct Population Segment (DPS) of Steller Sea Lions

NMFS categorizes the western DPS of Steller sea lion as a strategic stock and depleted under the MMPA and endangered under the Endangered Species Act of 1973 (ESA; 16 U.S.C. 1531 *et seq.*). The latest abundance estimate for the western Distinct Population Segment (DPS) of Steller sea lions is 82,516 animals (Allen and Angliss, 2015).

Eastern DPS of Steller Sea Lions

The eastern DPS includes animals born east of Cape Suckling, AK (144° W) and the latest abundance estimate for the stock is 60,131 to 74,448 animals (Allen and Angliss, 2015). Steller sea lions range along the North Pacific Rim from northern Japan to California (Loughlin *et al.*, 1984), with centers of abundance and distribution in the Gulf of Alaska and Aleutian Islands, respectively. The species is not known to migrate, but individuals disperse widely outside of the breeding season (late May through early July), thus potentially intermixing with animals from other areas. Recently, Jemison *et al.* (2013) summarized that there is regular movement of Steller sea lions from the western DPS (males and females equally) and eastern DPS (almost exclusively males) across the DPS boundary at Cape Suckling, AK. However, the proposed land survey location is over 1,000 kilometers from the DPS boundary and NMFS expects

that few if any Steller sea lions from the eastern DPS would be present on the small island.

Steller Sea Lion Critical Habitat

Under the ESA, NMFS has designated critical habitat for Steller sea lions based on the location of terrestrial rookery and haulout sites, spatial extent of foraging trips, and availability of prey items (50 CFR 226.202). Critical habitat includes a terrestrial zone that extends 0.9 km (3,000 ft) landward from the baseline or base point of a major haulout in Alaska. Critical habitat includes an air zone that extends 0.9 km (3,000 ft) above the terrestrial zone of a major haulout in Alaska, measured vertically from sea level. Critical habitat includes an aquatic zone that extends 20 nautical miles (37 km; 23 miles (mi)) seaward in state and federally managed waters from the baseline or basepoint of a major haulout in Alaska west of 144° W longitude. BLM's proposed action falls within an area designated as a major haulout for Steller sea lions.

Other Marine Mammals in the Proposed Action Area

The BLM, in collaboration with the Alaska Department of Fish and Game, has not encountered any other species of marine mammal (*e.g.*, the northern fur seal, (*Callorhinus ursinus*)) hauled out on the small island in the eastern Aleutian Islands archipelago during the course of previous surveying activities within the area over the past 13 years (ADGF, *Pers. Comm.*). NMFS

independently evaluated the likelihood of northern fur seal presence in the action area using the Ocean Biogeographic Information System Spatial Ecological Analysis of Megavertebate Populations viewer (OBIS SEAMAP, 2015) and found no records of observations of northern fur seals within the proposed action area. Thus, NMFS will not consider this species further in this notice.

Potential Effects of the Specified Activities on Marine Mammals

This section includes a summary and discussion of the ways that the types of stressors associated with the specified activity (*e.g.*, personnel presence) have been observed to impact marine mammals. This discussion may also include reactions that NMFS considers to rise to the level of a take and those that we do not consider to rise to the level of a take. This section serves as a background of potential effects and does not consider either the specific manner in which the applicant will carry out the activity or the mitigation that will be implemented, and how either of those will shape the anticipated impacts from this specific activity. The "Estimated Take by Incidental Harassment" section later in this document will include a quantitative analysis of the number of individuals that NMFS expects BLM to take during this activity. The "Negligible Impact Analysis" section will include the analysis of how this specific activity would impact marine mammals. NMFS will consider the

content of the following sections: Estimated Take by Incidental Harassment; Proposed Mitigation; and Anticipated Effects on Marine Mammal Habitat, to draw conclusions regarding the likely impacts of this activity on the reproductive success or survivorship of individuals—and from that consideration—the likely impacts of this activity on the affected marine mammal populations or stocks.

Potential Effects of Human Presence on Marine Mammals

The appearance of BLM surveyors may have the potential to cause Level B harassment of Steller sea lions hauled out on the small island in the proposed action area. Disturbance includes a variety of effects, including subtle to conspicuous changes in behavior, movement, and displacement. Disturbance may result in reactions ranging from an animal simply becoming alert to the presence of the surveyors (e.g., turning the head, assuming a more upright posture) to flushing from the haul-out site into the water. NMFS does not consider the lesser reactions to constitute behavioral harassment, or Level B harassment takes, but rather assumes that pinnipeds that move greater than 1 meter (m) (3.3 feet (ft)) or change the speed or direction of their movement in response to the presence of surveyors are behaviorally harassed, and thus subject to Level B taking. Animals that respond to the presence of surveyors by becoming alert, but do not move or change the nature of locomotion as described, are not considered to have been subject to behavioral harassment.

Reactions to human presence, if any, depend on species, state of maturity, experience, current activity, reproductive state, time of day, and many other factors (Richardson *et al.*, 1995; Wartzok *et al.*, 2004; Southall *et al.*, 2007; Weilgart, 2007). These behavioral reactions are often shown as: Changing durations of surfacing and dives, number of blows per surfacing, or moving direction and/or speed; reduced/increased vocal activities; changing/cessation of certain behavioral activities (such as socializing or feeding); visible startle response or aggressive behavior; avoidance of areas; and/or flight responses (e.g., pinnipeds flushing into the water from haul-outs or rookeries). If a marine mammal does react briefly to human presence by changing its behavior or moving a small distance, the impacts of the change are unlikely to be significant to the individual, let alone the stock or population. However, if visual stimuli from human presence displaces marine

mammals from an important feeding or breeding area for a prolonged period, impacts on individuals and populations could be significant (e.g., Lusseau and Bejder, 2007; Weilgart, 2007).

Disturbances resulting from human activity can impact short- and long-term pinniped haul out behavior (Renouf *et al.*, 1981; Schneider and Payne, 1983; Terhune and Almon, 1983; Allen *et al.*, 1984; Stewart, 1984; Suryan and Harvey, 1999; Mortenson *et al.*, 2000; and Kucey and Trites, 2006). Numerous studies have shown that human activity can flush harbor seals off haulout sites (Allen *et al.*, 1984; Calambokidis *et al.*, 1991; Suryan and Harvey, 1999; and Mortenson *et al.*, 2000) or lead to Hawaiian monk seals (*Monachus schauinslandi*) avoidance of beach areas (The Hawaiian monk seal (*Monachus schauinslandi*) avoiding beaches (Kenyon, 1972). In one case, human disturbance appeared to cause Steller sea lions to desert a breeding area at Northeast Point on St. Paul Island, Alaska (Kenyon, 1962).

In cases where vessels actively approached marine mammals (e.g., whale watching or dolphin watching boats), scientists have documented that animals exhibit altered behavior such as increased swimming speed, erratic movement, and active avoidance behavior (Bursk, 1983; Acevedo, 1991; Baker and MacGibbon, 1991; Trites and Bain, 2000; Williams *et al.*, 2002; Constantine *et al.*, 2003), reduced blow interval (Ritcher *et al.*, 2003), disruption of normal social behaviors (Lusseau, 2003; 2006), and the shift of behavioral activities which may increase energetic costs (Constantine *et al.*, 2003; 2004).

In 1997, Henry and Hammil (2001) conducted a study to measure the impacts of small boats (i.e., kayaks, canoes, motorboats and sailboats) on harbor seal haulout behavior in Métis Bay, Quebec, Canada. During that study, the authors noted that the most frequent disturbances (n=73) were caused by lower speed, lingering kayaks, and canoes (33.3 percent) as opposed to motorboats (27.8 percent) conducting high speed passes. The seal's flight reactions could be linked to a surprise factor by kayaks-canoes which approach slowly, quietly and low on water making them look like predators. However, the authors note that once the animals were disturbed, there did not appear to be any significant lingering effect on the recovery of numbers to their pre-disturbance levels. In conclusion, the study showed that boat traffic at current levels has only a temporary effect on the haulout behavior of harbor seals in the Métis Bay area.

In 2004, Johnson and Acevedo-Gutierrez (2007) evaluated the efficacy of buffer zones for watercraft around harbor seal haulout sites on Yellow Island, Washington. The authors estimated the minimum distance between the vessels and the haul-out sites; categorized the vessel types; and evaluated seal responses to the disturbances. During the course of the seven-weekend study, the authors recorded 14 human-related disturbances which were associated with stopped powerboats and kayaks. During these events, hauled out seals became noticeably active and moved into the water. The flushing occurred when stopped kayaks and powerboats were at distances as far as 453 and 1,217 ft (138 and 371 m) respectively. The authors note that the seals were unaffected by passing powerboats, even those approaching as close as 128 ft (39 m), possibly indicating that the animals had become tolerant of the brief presence of the vessels and ignored them. The authors reported that on average, the seals quickly recovered from the disturbances and returned to the haulout site in less than or equal to 60 minutes. Seal numbers did not return to pre-disturbance levels within 180 minutes of the disturbance less than one quarter of the time observed. The study concluded that the return of seal numbers to pre-disturbance levels and the relatively regular seasonal cycle in abundance throughout the area counter the idea that disturbances from powerboats may result in site abandonment (Johnson and Acevedo-Gutierrez, 2007). As a general statement from the available information, pinnipeds exposed to intense (approximately 110 to 120 decibels re: 20 μ Pa) non-pulse sounds often leave haulout areas and seek refuge temporarily (minutes to a few hours) in the water (Southall *et al.*, 2007).

There are three ways in which disturbance, as described previously, could result in more than Level B harassment of marine mammals. All three are most likely to be consequences of stampeding, a potentially dangerous occurrence in which large numbers of animals succumb to mass panic and rush away from a stimulus. The three situations are: (1) Falling when entering the water at high-relief locations; (2) extended separation of mothers and pups; and (3) crushing of pups by large males during a stampede. However, NMFS does not expect any of these scenarios to occur at the proposed survey site.

Because hauled-out animals may move towards the water when disturbed, there is the risk of injury if

animals stampede towards shorelines with precipitous relief (e.g., cliffs). However, while high-elevation sites exist on the small island, the haulout sites consist of ridges with unimpeded and non-obstructive access to the water. If disturbed, the small number of hauled-out adult animals may move toward the water without risk of encountering barriers or hazards that would otherwise prevent them from leaving the area. Moreover, the proposed area would not be crowded with large numbers of Steller sea lions during June or July, further eliminating the possibility of potentially injurious mass movements of animals attempting to vacate the haulout. Thus, in this case, NMFS considers the risk of injury, serious injury, or death to hauled-out animals as very low.

Finally, only adult Steller sea lions occupy the haulout site during June and July. No pups or breeding adults would be present during the proposed survey.

The probability of vessel and marine mammal interactions (*i.e.*, vessel strike) occurring during the proposed activities is unlikely due to main vessels slow operational speed around the island, which is typically 8 knots (9.2 miles per hour) coupled with the observer and BLM personnel continually scanning the water for marine mammals presence during transit to the island. Thus, NMFS does not anticipate that take would result from the movement of the main vessel or skiff.

Anticipated Effects on Marine Mammal Habitat

The only habitat modification associated with the proposed activity is the placement of a group of official U.S. survey markers into the ground. BLM would conduct the installation of the survey markers under the appropriate authorities (ANCSA) and would not use any power tools to set the markers.

NMFS expects that the presence of the surveyors would likely disturb any marine mammals present at the site. NMFS also expects that marine mammals would retreat to a distance where noise related to the use of shovels, digging bars, and mallets would not increase the disturbance. In most instances, wind and wave noise would also drown out the noise of the hand tools. At the conclusion of the survey, BLM would remove all survey equipment and would not leave any trash or field gear at the site.

NMFS does not anticipate that the proposed survey would result in any permanent effects on the habitats used by the marine mammals in the proposed area, including the food sources they use (*i.e.*, fish and invertebrates). Based

on the preceding discussion, NMFS does not anticipate that the proposed activity would have any habitat-related effects that could cause significant or long-term consequences for individual marine mammals or their populations.

Proposed Mitigation

In order to issue an incidental take authorization under section 101(a)(5)(D) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to such activity, and other means of effecting the least practicable adverse impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stock for taking for certain subsistence uses (where relevant).

Mitigation Measures

The BLM proposes to implement several mitigation measures to reduce potential take by Level B (behavioral disturbance) harassment. Measures include: (1) Conducting slow and controlled approaches to the island by vessel and skiff as far away as possible from hauled out sea lions to prevent or minimize stampeding; (2) avoiding placing the skiff in the path of swimming sea lions that may be present; (3) beginning terrestrial activities as far away as possible from hauled out sea lions; (4) conducting slow movements to prevent or minimize stampeding; (5) avoiding loud noises (*i.e.*, using hushed voices); (6) avoiding pinnipeds along access ways to sites by locating and taking a different access way and vacating the area as soon as possible after completing the land survey; (7) monitoring the offshore area for predators (such as killer whales and white sharks) and avoid flushing of pinnipeds when predators are observed in nearshore waters; and (8) using binoculars to detect pinnipeds before close approach to avoid being seen by animals.

BLM will use the methodologies and actions noted in this section which NMFS would include as mitigation measures in any issued Authorization to ensure that BLM mitigates impacts to marine mammals to the lowest level practicable. The primary method of mitigating the risk of disturbance to sea lions, which will be in use at all times, is the selection of judicious routes of approach to the survey site, avoiding close contact with sea lions hauled out on shore, and the use of extreme caution upon approach. In no case will BLM deliberately approach marine mammals. BLM personnel would select a pathway of approach to the survey sites that

minimizes the number of marine mammals potentially harassed. In general, BLM personnel would stay inshore of sea lions whenever possible to allow slow and controlled egress to the ocean. The survey would last for approximately 6–10 hours, after which personnel would vacate the survey site. Any marine mammals that may have been disturbed by the presence of surveyors could re-occupy the site after completion of the survey.

Mitigation Conclusions

NMFS has carefully evaluated BLM's proposed mitigation measures in the context of ensuring that we prescribe the means of affecting the least practicable impact on the affected marine mammal species and stocks and their habitat. The evaluation of potential measures included consideration of the following factors in relation to one another:

- The manner in which, and the degree to which, the successful implementation of the measure is expected to minimize adverse impacts to marine mammals;
- The proven or likely efficacy of the specific measure to minimize adverse impacts as planned; and
- The practicability of the measure for applicant implementation.

Any mitigation measure(s) prescribed by NMFS should be able to accomplish, have a reasonable likelihood of accomplishing (based on current science), or contribute to the accomplishment of one or more of the general goals listed here:

1. Avoidance or minimization of injury or death of marine mammals wherever possible (goals 2, 3, and 4 may contribute to this goal).

2. A reduction in the numbers of marine mammals (total number or number at biologically important time or location) exposed to vessel or visual presence that NMFS expects to result in the take of marine mammals (this goal may contribute to 1, above, or to reducing harassment takes only).

3. A reduction in the number of times (total number or number at biologically important time or location) individuals exposed to vessel or visual presence that NMFS expects to result in the take of marine mammals (this goal may contribute to 1, above, or to reducing harassment takes only).

4. A reduction in the intensity of exposures (either total number or number at biologically important time or location) to vessel or visual presence that NMFS expects to result in the take of marine mammals (this goal may contribute to a, above, or to reducing the severity of harassment takes only).

5. Avoidance or minimization of adverse effects to marine mammal habitat, paying special attention to the food base, activities that block or limit passage to or from biologically important areas, permanent destruction of habitat, or temporary destruction/disturbance of habitat during a biologically important time.

6. For monitoring directly related to mitigation—an increase in the probability of detecting marine mammals, thus allowing for more effective implementation of the mitigation.

Based on the evaluation of BLM proposed measures, NMFS has preliminarily determined that the proposed mitigation measures provide the means of effecting the least practicable impact on marine mammal species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.

Proposed Monitoring

In order to issue an incidental take authorization for an activity, section 101(a)(5)(D) of the MMPA states that NMFS must set forth “requirements pertaining to the monitoring and reporting of such taking.” The MMPA implementing regulations at 50 CFR 216.104(a)(13) indicate that requests for Authorizations must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that NMFS expects to be present in the proposed action area.

BLM submitted a marine mammal monitoring plan in section 13 of their Authorization application. NMFS or BLM may modify or supplement the plan based on comments or new information received from the public during the public comment period.

Monitoring measures prescribed by NMFS should accomplish one or more of the following general goals:

1. An increase in our understanding of the likely occurrence of marine mammal species in the vicinity of the action, (*i.e.*, presence, abundance, distribution, and/or density of species).

2. An increase in our understanding of the nature, scope, or context of the likely exposure of marine mammal species to any of the potential stressor(s) associated with the action (*e.g.*, sound or visual stimuli), through better understanding of one or more of the following: The action itself and its environment (*e.g.*, sound source characterization, propagation, and ambient noise levels); the affected

species (*e.g.*, life history or dive pattern); the likely co-occurrence of marine mammal species with the action (in whole or part) associated with specific adverse effects; and/or the likely biological or behavioral context of exposure to the stressor for the marine mammal (*e.g.*, age class of exposed animals or known pupping, calving or feeding areas).

3. An increase in our understanding of how individual marine mammals respond (behaviorally or physiologically) to the specific stressors associated with the action (in specific contexts, where possible, *e.g.*, at what distance or received level).

4. An increase in our understanding of how anticipated individual responses, to individual stressors or anticipated combinations of stressors, may impact either: The long-term fitness and survival of an individual; or the population, species, or stock (*e.g.* through effects on annual rates of recruitment or survival).

5. An increase in our understanding of how the activity affects marine mammal habitat, such as through effects on prey sources or acoustic habitat (*e.g.*, through characterization of longer-term contributions of multiple sound sources to rising ambient noise levels and assessment of the potential chronic effects on marine mammals).

6. An increase in understanding of the impacts of the activity on marine mammals in combination with the impacts of other anthropogenic activities or natural factors occurring in the region.

7. An increase in our understanding of the effectiveness of mitigation and monitoring measures.

8. An increase in the probability of detecting marine mammals (through improved technology or methodology), both specifically within the safety zone (thus allowing for more effective implementation of the mitigation) and in general, to better achieve the above goals.

As part of its Authorization application, BLM proposes to sponsor marine mammal monitoring, in order to implement the mitigation measures that require real-time monitoring, and to satisfy the monitoring requirements of the proposed Authorization. These include:

- The vessel would circle the island from the greatest distance feasible for accurate observation to allow the marine mammal observer (observer) to map and record the initial locations, numbers, and behaviors of Steller sea lions using the island before commencing the survey. The observer would use this information to recommend where BLM

personnel should approach the survey area to minimize disruption to any Steller sea lions hauled out on the island.

- Once on land, the observer would record any changes in sea lion locations, numbers, or behaviors observed during the reconnaissance.

- The observer would post at a location (*e.g.*, a ridge or other high elevation area) to visually observe sea lions with no or minimal risk of modifying their behavior. If possible, the observer would also have the land survey crew in sight and would communicate with the surveyors using hand-held radios. The observer would advise the crew on the location and behavior of the sea lions to maximize the safety of both the sea lions and the crew.

Proposed monitoring requirements in relation to BLM’s proposed activities would include species counts, numbers of observed disturbances, and descriptions of the disturbance behaviors during the monitoring surveys, including location, date, and time of the event. In addition, BLM would record observations regarding the number and species of any marine mammals either observed in the water or hauled out.

BLM can add to the knowledge of pinnipeds in the proposed action area by noting observations of: (1) Unusual behaviors, numbers, or distributions of pinnipeds, such that any potential follow-up research can be conducted by the appropriate personnel; (2) tag-bearing carcasses of pinnipeds, allowing transmittal of the information to appropriate agencies and personnel; and (3) rare or unusual species of marine mammals for agency follow-up.

If at any time injury, serious injury, or mortality of the species for which take is authorized should occur, or if take of any kind of any other marine mammal occurs, and such action may be a result of the proposed land survey, BLM would suspend survey activities and contact NMFS immediately to determine how best to proceed to ensure that another injury or death does not occur and to ensure that the applicant remains in compliance with the MMPA.

Proposed Reporting

BLM would submit a draft report to NMFS Office of Protected Resources no later than 90 days after the expiration of the proposed Authorization, if issued. The report will include a summary of the information gathered pursuant to the monitoring requirements set forth in the proposed Authorization. BLM will submit a final report to the Director of the NMFS Office of Protected Resources

within 30 days after receiving comments from NMFS on the draft report. If BLM receives no comments from NMFS on the report, NMFS will consider the draft report to be the final report.

The report will describe the operations conducted and sightings of marine mammals near the proposed project. The report will provide full documentation of methods, results, and interpretation pertaining to all monitoring. The report will provide:

1. A summary and table of the dates, times, and weather during all research activities.
2. Species, number, location, and behavior of any marine mammals observed throughout all monitoring activities.
3. An estimate of the number (by species) of marine mammals exposed to human presence associated with the survey activities.
4. A description of the implementation and effectiveness of the monitoring and mitigation measures of the Authorization and full documentation of methods, results, and interpretation pertaining to all monitoring.

In the unanticipated event that the specified activity clearly causes the take of a marine mammal in a manner prohibited by the authorization, such as an injury (Level A harassment), serious injury, or mortality (*e.g.*, vessel-strike, stampede, etc.), BLM personnel shall immediately cease the specified activities and immediately report the incident to the Division Chief, Permits and Conservation Division, Office of Protected Resources, NMFS, at 301–427–8401 and the Alaska Regional Stranding Coordinator at (907) 586–7248. The report must include the following information:

- Time, date, and location (latitude/longitude) of the incident;
- Description and location of the incident (including water depth, if applicable);
- Environmental conditions (*e.g.*, wind speed and direction, Beaufort sea state, cloud cover, and visibility);
- Description of all marine mammal observations in the 24 hours preceding the incident;
 - Species identification or description of the animal(s) involved;
 - Fate of the animal(s); and
 - Photographs or video footage of the animal(s) (if equipment is available).

BLM shall not resume its activities until NMFS is able to review the circumstances of the prohibited take. We will work with BLM to determine what is necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. BLM may

not resume their activities until notified by us via letter, email, or telephone.

In the event that BLM discovers an injured or dead marine mammal, and the marine mammal observer determines that the cause of the injury or death is unknown and the death is relatively recent (*i.e.*, in less than a moderate state of decomposition as we describe in the next paragraph), BLM will immediately report the incident to the Division Chief, Permits and Conservation Division, Office of Protected Resources, NMFS, at 301–427–8401 and the Alaska Regional Stranding Coordinator at (907) 586–7248. The report must include the same information identified in the paragraph above this section. Activities may continue while NMFS reviews the circumstances of the incident. NMFS would work with BLM to determine whether modifications in the activities are appropriate.

In the event that BLM discovers an injured or dead marine mammal, and the lead visual observer determines that the injury or death is not associated with or related to the authorized activities (*e.g.*, previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), BLM will report the incident to the Division Chief, Permits and Conservation Division, Office of Protected Resources, NMFS, at 301–427–8401 and the Alaska Regional Stranding Coordinator at (907) 586–7248 within 24 hours of the discovery. BLM personnel will provide photographs or video footage (if available) or other documentation of the stranded animal sighting to us. BLM can continue their survey activities while NMFS reviews the circumstances of the incident.

Estimated Take by Incidental Harassment

Except with respect to certain activities not pertinent here, the MMPA defines “harassment” as: Any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [Level B harassment].

All anticipated takes would be by Level B harassment, involving temporary changes in behavior. NMFS expects that the proposed mitigation and monitoring measures would minimize the possibility of injurious or

lethal takes. NMFS considers the potential for take by injury, serious injury, or mortality as remote. NMFS expects that the presence of BLM personnel could disturb of animals hauled out close to the survey site and that the animals may alter their behavior or attempt to move away from the surveyors.

As discussed earlier, NMFS considers an animal to have been harassed if it moved greater than 1 m (3.3 ft) in response to the surveyors’ presence or if the animal was already moving and changed direction and/or speed, or if the animal flushed into the water. NMFS does not consider animals that became alert without such movements as harassed.

For the purpose of this proposed Authorization, BLM proposed take estimates based on sea lion survey counts obtained from NMFS’ National Marine Mammal (NMML) Steller Sea Lion Count Database and from researchers with extensive knowledge and experience of the survey location. Data from NMFS’ National Marine Mammal (NMML) Steller Sea Lion Count Database indicate that approximately 80 adult Steller sea lions of the western DPS haul out on the small island mainly in late winter and early spring (NMML, 2015). However, use of that particular haulout decreases after May in the summer with NMML’s database records (2000–2008) indicating a maximum of eight adults hauled out on the island during June or July (NMML, 2015; B. Fadely, Pers. Comm.).

These observations formed the basis of the actual number of marine mammals that may be subject to take. Based on best available information, NMFS estimates that the survey activities could potentially affect by Level B behavioral harassment up to 20 Steller sea lions over the course of the Authorization. This estimate represents less than one percent (0.0002) of the western DPS of Steller sea lions and accounts for a maximum disturbance of 20 animals during the one-day visit to the island. Actual take may be slightly less if animals decide to haul out at a different location for the day or if animals are foraging at the time of the survey activities.

NMFS does not propose to authorize any injury, serious injury, or mortality. NMFS expect all potential takes to fall under the category of Level B harassment only.

Encouraging and Coordinating Research

BLM would share observations and counts of marine mammals and all observed disturbances to the

appropriate state and federal agencies at the conclusion of the survey.

Analysis and Preliminary Determinations

Negligible Impact

Negligible impact' is "an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival" (50 CFR 216.103). The lack of likely adverse effects on annual rates of recruitment or survival (*i.e.*, population level effects) forms the basis of a negligible impact finding. An estimate of the number of Level B harassment takes alone is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be "taken" through behavioral harassment, NMFS considers other factors, such as the likely nature of any responses (*e.g.*, intensity, duration), the context of any responses (*e.g.*, critical reproductive time or location, migration), as well as the number and nature of estimated Level A harassment takes, the number of estimated mortalities, and effects on habitat.

Although BLM's survey activities may disturb sea lions hauled out on the island, NMFS expects those impacts to occur to a small, localized group of animals for a limited duration (*e.g.*, 6–10 hours in one day). Steller sea lions would likely become alert or, at most, flush into the water in reaction to the presence of BLM personnel during the proposed activities. Disturbance will be limited to a short duration, allowing adult sea lions to reoccupy the island within a short amount of time. Thus, the proposed action is unlikely to result in long-term impacts such as permanent abandonment of the haul-out.

BLM's activities would occur during the least sensitive time (*e.g.*, summer, June through July) for hauled out sea lions on the island. Only adult Steller sea lions occupy the haulout site during June and July. Thus, pups or breeding adults would not be present during the proposed one-day survey.

Moreover, BLM's mitigation measures regarding transit speed, island approaches, and survey site ingress and egress would minimize the potential for stampedes and large-scale movements. Thus, the potential for large-scale movements and stampede leading to injury, serious injury, or mortality is low.

NMFS proposes to authorize take for the Western DPS of Steller sea lion

listed as endangered under the ESA and classified as a strategic stock and depleted under the MMPA. BLM's proposed action falls within an area designated as a major haulout for Steller sea lions under the critical habitat designations of the ESA. Steller sea lions spend much of their time in marine water but they do rest and breed on land. During the breeding and pupping season (late May to early July), reproductively active adult Steller sea lions occupy rookeries (terrestrial birthing sites) whereas non-breeding individuals use haulouts (terrestrial resting sites). In this case, relatively small numbers (less than 10) of adult, non-reproducing, Steller sea lions use the island as a haulout during the months of June and July when the one-day survey would occur. Moreover, BLM's proposed activities would not significantly alter the physical or biological features of the critical habitat. Project related disturbances to Steller sea lion would result from stimuli related to vessel and human presence within the proposed area. However, the disturbances related to these activities are temporary in nature and not expected to permanently modify the critical habitat.

In summary, NMFS anticipates that impacts to hauled-out Steller sea lions during BLM's land survey activities would be behavioral harassment of limited duration (*i.e.*, less than one day) and limited intensity (*i.e.*, temporary flushing at most). NMFS does not expect stampeding, and therefore injury or mortality to occur (see "Mitigation" for more details). Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the proposed monitoring and mitigation measures, NMFS preliminarily finds that the total marine mammal take from BLM's proposed survey activities will have a negligible impact on the affected marine mammal species or stocks.

Small Numbers

As mentioned previously, NMFS estimates that BLM's proposed activities could potentially affect, by Level B harassment only, one species of marine mammal under our jurisdiction. NMFS estimates that the survey activities could potentially affect by Level B behavioral harassment up to 20 Steller sea lions over the course of the proposed Authorization. This estimate represents less than one percent (0.0002) of the western DPS of Steller sea lions and accounts for a maximum disturbance of 20 animals during the

one-day visit to the island. For the Western DPS of Steller sea lion, this estimate is small (less than one percent) relative to the population size of 82,516 animals. However, actual take may be slightly less if animals decide to haul out at a different location for the day or if animals are foraging at the time of the survey activities. Based on the analysis contained in this notice of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the mitigation and monitoring measures, NMFS preliminarily finds that BLM's proposed activities would take small numbers of marine mammals relative to the populations of the affected species or stocks.

Impact on Availability of Affected Species or Stock for Taking for Subsistence Uses

There are no relevant subsistence uses of marine mammals implicated by this action. The proposed activity occurs south of the latitude that NMFS' categorizes as within Arctic waters (*i.e.*, north of 60° N). Therefore, NMFS has determined that the total taking of affected species or stocks would not have an unmitigable adverse impact on the availability of such species or stocks for taking for subsistence purposes.

Endangered Species Act (ESA)

For the reasons already described in this notice, NMFS has determined that the issuance of a proposed Authorization may have an effect on species or critical habitat protected under the ESA (specifically, the Steller sea lion). Under section 7 of the ESA, BLM has initiated formal consultation with NMFS on the proposed land survey. NMFS (*i.e.*, National Marine Fisheries Service, Office of Protected Resources, Permits and Conservation Division) will also consult internally with NMFS on the proposed issuance of an Authorization under section 101(a)(5)(D) of the MMPA. NMFS and BLM will conclude the consultation prior to a determination on the issuance of the Authorization.

National Environmental Policy Act (NEPA)

To meet NEPA requirements for the issuance of a proposed Authorization to BLM, NMFS intends to prepare an Environmental Assessment (EA) on NMFS' proposed action. Prior to making a final decision on the issuance of an Authorization, NMFS would decide whether or not to issue a Finding of No Significant Impact. NMFS will review all comments submitted in response to

this notice to complete the NEPA process prior to making a final decision on the Authorization request.

Proposed Authorization

As a result of these preliminary determinations, NMFS proposes issuing an Incidental Harassment Authorization to BLM for take incidental to conducting a one-day field-based land survey of cultural sites located on a small island within the eastern Aleutian Islands archipelago, during the period of June 1, 2015 through July 31, 2015, provided they incorporate the previously mentioned mitigation, monitoring, and reporting requirements.

Draft Proposed Authorization

This section contains the draft text for the proposed Authorization. NMFS proposes to include this language in the Authorization if issued.

Proposed Authorization Language

The Bureau of Land Management (BLM)—Alaska Division of Lands and Cadastral, 222 West Seventh Avenue, #13, Anchorage, Alaska 99513 and/or its designees (holders of the Authorization) are hereby authorized under section 101(a)(5)(D) of the Marine Mammal Protection Act (16 U.S.C. 1361 *et seq.*) to harass small numbers of marine mammals incidental to conducting a one-day field-based land survey of cultural sites.

1. This Authorization is valid from June 1 through July 31, 2015.

2. This Authorization is valid only for land survey activities that would occur in the following specified geographic area: The island within the eastern Aleutian Islands archipelago identified in BLM's application.

3. Species Authorized and Level of Takes

a. The taking, by Level B harassment only, is limited to the following species: 20 Steller sea lions (*Eumetopias jubatus*).

b. The taking by injury (Level A harassment), serious injury or death of any of the species listed in Condition 3(a) or the taking of any kind of any other species of marine mammal is prohibited and may result in the modification, suspension or revocation of this Authorization.

c. The taking by injury (Level A harassment), serious injury, or death of any of the species listed in condition 3(b) of the Authorization or any taking of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this Authorization.

4. General Conditions

A copy of this Authorization must be in the possession of the BLM, its designees, and field crew personnel operating under the authority of this Authorization at all times. BLM must also abide by the Terms and Conditions included within the Biological Opinion's Incidental Take Statement.

5. Mitigation Measures

BLM and its designees must implement the following mitigation measures:

a. Conduct a slow and controlled approach to the island by vessel and skiff as far away as possible from hauled out sea lions to prevent or minimize stampeding.

b. Ensure that the main vessel and skiff approach the island at a reasonably slow speed (*i.e.*, no faster than 8 knots (9.2 miles per hour)).

c. Monitor for offshore predators such as great white sharks (*Carcharodon carcharias*) or killer whales (*Orcinus orca*) prior to accessing the island. If BLM and/or its designees see predators in the area, they must not disturb the animals until the area is free of predators.

d. Avoid placing the skiff in the path of swimming sea lions that may be present in the area.

e. Select a pathway of approach to the survey site that minimizes the number of marine mammals harassed and conduct slow movements while accessing and exiting the island to prevent or minimize stampeding.

f. Maintain a quiet working atmosphere, avoid loud noises, and use hushed voices in the presence of hauled out pinnipeds.

g. Initiate the land survey away from hauled out sea lions as far away as practicable. If BLM and/or its designees need to survey in the direction of hauled out sea lions, proceed in a slow and controlled manner to minimize disturbance and allow animals to slowly flush into the water.

h. Use binoculars to detect pinnipeds before close approach to avoid being seen by animals.

6. Monitoring

The holder of this Authorization is required to conduct monitoring of marine mammals present at the survey site. BLM and/or its designees shall have at least one NMFS-qualified biologist serve as a marine mammal observer to evaluate incidental take and implement mitigation measures.

a. BLM and/or its designees shall record the following:

i. Species counts (with numbers of adults/juveniles); and:

ii. Numbers of disturbances, by species and age, according to a three-point scale of intensity including: (1) Head orientation in response to disturbance, which may include turning head towards the disturbance, craning head and neck while holding the body rigid in a u-shaped position, or changing from a lying to a sitting position and/or slight movement of less than 1 meter; "alert"; (2) Movements in response to or away from disturbance, typically over short distances (1–3 meters) and including dramatic changes in direction or speed of locomotion for animals already in motion; "movement"; and (3) All flushes to the water as well as lengthier retreats (>3 meters); "flight".

iii. Information on the weather, including the tidal state and horizontal visibility.

b. If applicable, the observer shall note observations of marked or tag-bearing pinnipeds or carcasses, as well as any rare or unusual species of marine mammal.

c. If applicable, the observer shall note the presence of any offshore predators (date, time, number, and species).

7. Reporting

The holder of this Authorization is required to:

a. Draft Report: Submit a draft monitoring report to the Division Chief, Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service within 90 days after the Authorization expires. NMFS will review the Draft Report which is subject to review and comment by NMFS. BLM must address any recommendations made by NMFS in the Final Report prior to submission to NMFS. If NMFS decides that the draft final report needs no comments, NMFS will consider the draft report as the Final Report.

b. Final Report: BLM shall prepare and submit a Final Report to NMFS within 30 days following resolution of any comments on the draft report from NMFS.

8. Reporting Injured or Dead Marine Mammals

In the unanticipated event that the specified activity clearly causes the take of a marine mammal in a manner prohibited by the authorization, such as an injury (Level A harassment), serious injury, or mortality (*e.g.*, vessel-strike, stampede, etc.), BLM and/or its designees shall immediately cease the specified activities and immediately report the incident to the Division Chief, Permits and Conservation Division, Office of Protected Resources, NMFS, at

301-427-8401 and the Alaska Regional Stranding Coordinator at (907) 586-7248. The report must include the following information:

- Time, date, and location (latitude/longitude) of the incident;
- Description and location of the incident (including water depth, if applicable);
- Environmental conditions (*e.g.*, wind speed and direction, Beaufort sea state, cloud cover, and visibility);
- Description of all marine mammal observations in the 24 hours preceding the incident;
- Species identification or description of the animal(s) involved;
- Fate of the animal(s); and
- Photographs or video footage of the animal(s) (if equipment is available).

BLM shall not resume its activities until NMFS is able to review the circumstances of the prohibited take. NMFS will work with BLM to determine what is necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. BLM may not resume their activities until notified by us via letter, email, or telephone.

In the event that BLM discovers an injured or dead marine mammal, and the marine mammal observer determines that the cause of the injury or death is unknown and the death is relatively recent (*i.e.*, in less than a moderate state of decomposition as we describe in the next paragraph), BLM will immediately report the incident to the Division Chief, Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401 and the Alaska Regional Stranding Coordinator at (907) 586-7248. The report must include the same information identified in the paragraph above this section. Activities may continue while NMFS reviews the circumstances of the incident. NMFS would work with BLM to determine whether modifications in the activities are appropriate.

In the event that BLM discovers an injured or dead marine mammal, and the lead visual observer determines that the injury or death is not associated with or related to the authorized activities (*e.g.*, previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), BLM will report the incident to the Division Chief, Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401 and the Alaska Regional Stranding Coordinator at (907) 586-7248 within 24 hours of the discovery. BLM personnel will provide photographs or video footage (*if available*) or other documentation of the

stranded animal sighting to us. BLM can continue their survey activities while NMFS reviews the circumstances of the incident.

Request for Public Comments

NMFS requests comments on our analysis, the draft authorization, and any other aspect of this notice of proposed Authorization for the proposed activities. Please include any supporting data or literature citations with your comments to help inform our final decision on BLM's request for an Authorization.

Dated: April 13, 2015.

Donna S. Wieting,

*Director, Office of Protected Resources,
National Marine Fisheries Service.*

[FR Doc. 2015-08840 Filed 4-16-15; 8:45 am]

BILLING CODE 3510-22-P

COMMITTEE FOR PURCHASE FROM PEOPLE WHO ARE BLIND OR SEVERELY DISABLED

Procurement List; Deletions

AGENCY: Committee for Purchase From People Who Are Blind or Severely Disabled.

ACTION: Deletions from the Procurement List.

SUMMARY: This action deletes products from the Procurement List previously furnished by nonprofit agencies employing persons who are blind or have other severe disabilities.

DATES: *Effective Date:* 5/18/2015.

ADDRESSES: Committee for Purchase From People Who Are Blind or Severely Disabled, 1401 S. Clark Street, Suite 715, Arlington, Virginia, 22202-4149.

FOR FURTHER INFORMATION CONTACT: Barry S. Lineback, Telephone: (703) 603-7740, Fax: (703) 603-0655, or email CMTEFedReg@AbilityOne.gov.

SUPPLEMENTARY INFORMATION:

Deletions

On 3/6/2015 (80 FR 12156) and 3/13/2015 (80 FR 13351-13352), the Committee for Purchase From People Who Are Blind or Severely Disabled published notices of proposed deletions from the Procurement List.

After consideration of the relevant matter presented, the Committee has determined that the products listed below are no longer suitable for procurement by the Federal Government under 41 U.S.C. 8501-8506 and 41 CFR 51-2.4.

Regulatory Flexibility Act Certification

I certify that the following action will not have a significant impact on a

substantial number of small entities. The major factors considered for this certification were:

1. The action will not result in additional reporting, recordkeeping or other compliance requirements for small entities.

2. The action may result in authorizing small entities to furnish the products to the Government.

3. There are no known regulatory alternatives which would accomplish the objectives of the Javits-Wagner-O'Day Act (41 U.S.C. 8501-8506) in connection with the products deleted from the Procurement List.

End of Certification

Accordingly, the following products are deleted from the Procurement List:

Products

Product Name/NSN: Binder, Vinyl/7510-00-NIB-0588.

Mandatory Source of Supply: ForSight Vision, York, PA.

Contracting Activity: General Services Administration, New York, NY.

Product Name/NSN: Binder, Round Ring, Clear Overlay, Pockets, Brown, 1 1/2" Capacity, Letter Size/7510-01-519-4361.

Mandatory Source of Supply: South Texas Lighthouse for the Blind, Corpus Christi, TX.

Contracting Activity(s): General Services Administration, New York, NY.
Department of Veterans Affairs, NAC, Hines, IL.

Product Name/NSN(s): Bottle, Pharmaceutical, White, Screw Cap.

6530-00-NIB-0129-60cc

6530-00-NIB-0130-100cc

6530-00-NIB-0131-150cc

6530-00-NIB-0132-300cc

6530-00-NIB-0133-500cc

Mandatory Source of Supply: Alphapointe, Kansas City, MO.

Contracting Activity: Department of Health and Human Services, Division of Contract & Grants Operations, Washington, DC.

Product Name/NSN(s): Cap, Operating, Surgical.

6532-00-250-5041

6532-00-250-5042

Mandatory Source of Supply: Allied Health Care Services, Clarks Summit, PA.

Contracting Activity: Defense Logistics Agency Troop Support, Philadelphia, PA.

Barry S. Lineback,

Director, Business Operations.

[FR Doc. 2015-08847 Filed 4-16-15; 8:45 am]

BILLING CODE 6353-01-P

COMMITTEE FOR PURCHASE FROM PEOPLE WHO ARE BLIND OR SEVERELY DISABLED

Procurement List; Proposed Deletions

AGENCY: Committee for Purchase From People Who Are Blind or Severely Disabled.

ACTION: Proposed Deletions from the Procurement List.

SUMMARY: The Committee is proposing to delete products previously furnished by nonprofit agencies employing persons who are blind or have other severe disabilities.

DATES: Comments must be received on or before: 5/18/2015.

ADDRESSES: Committee for Purchase From People Who Are Blind or Severely Disabled, 1401 S. Clark Street, Suite 715, Arlington, Virginia 22202-4149.

FOR FURTHER INFORMATION CONTACT: Barry S. Lineback, Telephone: (703) 603-7740, Fax: (703) 603-0655, or email CMTEFedReg@AbilityOne.gov.

SUPPLEMENTARY INFORMATION:

This notice is published pursuant to 41 U.S.C. 8503(a)(2) and 41 CFR 51-2.3. Its purpose is to provide interested persons an opportunity to submit comments on the proposed actions.

Deletions

The following products are proposed for deletion from the Procurement List:

Products

Product Name/NSN: Rain Gauge, 4"/6660-00-920-3722.

Mandatory Source of Supply: Productive Alternatives, Inc., Fergus Falls, MN.

Contracting Activity: Dept of Comm/Office of the Secretary, Kansas City, MO.

Product Name(s)/NSN(s): Brassard, Military Police/8455-00-818-8826, Brassard, Army, Military/8455-01-236-1174.

Mandatory Source of Supply: No NPA Assigned.

Contracting Activity: Defense Logistics Agency Troop Support, Philadelphia, PA.

Product Name/NSN(s): Vest, Load Bearing Equipment, 8465-01-440-3690—Rappel Seat, Assembly, Part No 3505-06-203—strap, Leg, Part No 3505-06-205—Strap, Waist, 8465-01-440-5883—Harness, SPIE, Assembly.

Mandatory Source of Supply: Chautauqua County Chapter, NYSARC, Jamestown, NY.

Contracting Activity: Dept of the Navy, Commander, Quantico, VA.

Barry S. Lineback,

Director, Business Operations.

[FR Doc. 2015-08848 Filed 4-16-15; 8:45 am]

BILLING CODE 6353-01-P

DEPARTMENT OF DEFENSE

Office of the Secretary

Charter Renewal of Department of Defense Federal Advisory Committees

AGENCY: Department of Defense.

ACTION: Renewal of Federal Advisory Committee.

SUMMARY: The Department of Defense is publishing this notice to announce that it is renewing the charter for the Reserve Forces Policy Board ("the Board").

FOR FURTHER INFORMATION CONTACT: Jim Freeman, Advisory Committee Management Officer for the Department of Defense, 703-692-5952.

SUPPLEMENTARY INFORMATION: This committee's charter is being renewed pursuant to 10 U.S.C. 175 and 10301 and in accordance with the Federal Advisory Committee Act (FACA) of 1972 (5 U.S.C., Appendix, as amended) and 41 CFR 102-3.50(a), established the Board.

The Board is a statutory Federal advisory committee that serves as an independent adviser to the Secretary of Defense to provide advice and recommendations on strategic, policies, and practices designed to improve and enhance the capabilities, efficiency, and effectiveness of the reserve components. The Board shall provide to the Secretary of Defense, for transmittal to the President and the Congress, an annual report on any reserve component matters that the Board considers appropriate.

The Board reports to the Secretary of Defense and/or the Deputy Secretary of Defense, through the Under Secretary of Defense for Personnel and Readiness (USD(P&R)). The USD(P&R) may act upon the Board's advice and recommendations.

Under the provisions of 10 U.S.C. 10301(c), the Board shall be composed of 20 members, appointed or designated as follows:

a. A civilian appointed by the Secretary of Defense from among persons determined by the Secretary to have the knowledge of, and experience in, policy matters relevant to national security and reserve component matters necessary to carry out the duties of Chair of the Board, who shall serve as Chair of the Board.

b. Two active or retired reserve officers or enlisted members designated by the Secretary of Defense, upon the recommendation of the Secretary of the Army:

(1) One of whom shall be a member of the Army National Guard of the United States or a former member of the

Army National Guard of the United States in the Retired Reserve; and,

(2) One of whom shall be a member or retired member of the Army Reserve.

c. Two active or retired reserve officers or enlisted members designated by the Secretary of Defense, upon the recommendation of the Secretary of the Navy:

(1) One of whom shall be an active or retired officer of the Navy Reserve; and,

(2) One of whom shall be an active or retired officer of the Marine Corps Reserve.

d. Two active or retired reserve officers or enlisted members designated by the Secretary of Defense, upon the recommendation of the Secretary of the Air Force:

(1) One of whom shall be a member of the Air National Guard of the United States or a former member of the Air National Guard of the United States in the Retired Reserve; and,

(2) One of whom shall be a member or retired member of the Air Force Reserve.

e. One active or retired reserve officer or enlisted member of the U.S. Coast Guard designated by the Secretary of Homeland Security.

f. Ten persons appointed or designated by the Secretary of Defense, each of whom shall be a United States citizen having significant knowledge of, and experience in, policy matters relevant to national security and reserve component matters and shall be one of the following:

(1) An individual not employed in any Federal or State department or agency.

(2) An individual employed by a Federal or State department or agency.

(3) An officer of a regular component of the armed forces on active duty, or an officer of a reserve component of the armed forces in an active status, who:

a. Is serving or has served in a senior position on the Joint Staff, the headquarters staff of a Combatant Command, or the headquarters staff of an armed force; and,

b. Has experience in joint professional military education, joint qualification, and joint operations matters.

g. A reserve officer of the Army, Navy, Air Force, or Marine Corps, who is a general or flag officer, recommended by the Chair and designated by the Secretary of Defense, who shall serve without vote:

(1) As military adviser to the Chair;

(2) As military executive officer of the Board; and,

(3) As supervisor of the operations and staff of the Board.

h. A senior enlisted member of a reserve component recommended by the

Chair and designated by the Secretary of Defense, who shall serve without vote as enlisted military adviser to the Chair.

Each member, based upon his or her individual professional experience, provides his or her best judgment on the matters before the Board, and he or she does so in a manner that is free from conflict of interest. Board members who are not full-time or permanent part-time Federal officers or employees, will be appointed as experts or consultants pursuant to 5 U.S.C. 3109 to serve as special government employee (SGE) members. Board members who are full-time or permanent part-time Federal officers or employees will serve as regular government employee (RGE) members pursuant to 41 CFR 102–3.130(a). Members of the Board shall serve a term of service of one-to-four years, and their appointments must be renewed by the Secretary of Defense on an annual basis. No member may serve more than two consecutive terms of service without Secretary of Defense or Deputy Secretary of Defense approval.

Board members are not compensated for service on the Board, but each member is reimbursed for travel and per diem as it pertains to official business of the Board.

DoD, when necessary and consistent with the Board's mission and DoD policies and procedures, may establish subcommittees, task forces, or working groups to support the Board. Establishment of subcommittees will be based upon a written determination, to include terms of reference, by the Secretary of Defense, the Deputy Secretary of Defense, or the USD(P&R), as the Board's Sponsor.

Such subcommittees will not work independently of the Board and will report all of their recommendations and advice solely to the Board for full and open deliberation and discussion. Subcommittees, task forces, or working groups have no authority to make decisions and recommendations, verbally or in writing, on behalf of the Board. No subcommittee or any of its members can update or report, verbally or in writing, on behalf of the Board, directly to the DoD or any Federal officers or employees.

Each member, based upon his or her individual professional experience, provides his or her best judgment on the matters before the Board, and he or she does so in a manner that is free from conflict of interest. All subcommittee members will be appointed by the Secretary of Defense or the Deputy Secretary of Defense to a term of service of one-to-four years, with annual renewals, even if the individual in question is already a member of the

Board. Subcommittee members will not serve more than two consecutive terms of service, unless authorized by the Secretary of Defense or the Deputy Secretary of Defense. Subcommittee members who are not full-time or permanent part-time Federal officers or employees will be appointed as an expert or consultant pursuant to 5 U.S.C. 3109, to serve as a SGE member. Subcommittee members who are full-time or permanent part-time Federal officers or employees will be appointed pursuant to 41 CFR 102–3.130(a), to serve as a RGE member. With the exception of reimbursement of official travel and per diem related to the Board or its subcommittees, subcommittee members will serve without compensation.

All subcommittees operate under the provisions of FACA, the Sunshine Act, governing Federal statutes and regulations, and established DoD policies and procedures.

Currently, DoD has approved three permanent subcommittees to the Board. The subcommittees will have no more than 15 members and will normally meet once per quarter. A subcommittee Chairperson will be appointed by the Secretary of Defense.

The three permanent subcommittees and their missions are:

a. Subcommittee on Enhancing DoD's Role in the Homeland is focused on improving the capability and capacity of the reserve component to address the increasing threats to the homeland.

b. Subcommittee on Ensuring a Ready, Capable, Available, and Sustainable Operational Reserve is focused on retaining the operational capability and experience within the reserve component to meet future threats.

c. Subcommittee on Supporting and Sustaining Reserve Component Personnel assess whether the current Service member, families, and employers programs and policies are meeting the needs of an operational reserve.

The Board's Designated Federal Officer (DFO) must be a full-time or permanent part-time DoD officer or employee, appointed in accordance with established DoD policies and procedures. The Board's DFO is required to attend all meetings of the Board and its subcommittees for the entire duration of each and every meeting. However, in the absence of the Board's DFO, a properly approved Alternate DFO, duly appointed to the Board according to established DoD policies and procedures, must attend the entire duration of all meetings of the Board and its subcommittees.

The DFO, or the Alternate DFO, calls all meetings of the Board and its subcommittees; prepares and approves all meeting agendas; and adjourns any meeting when the DFO, or the Alternate DFO, determines adjournment to be in the public interest or required by governing regulations or DoD policies and procedures.

Pursuant to 41 CFR 102–3.105(j) and 102–3.140, the public or interested organizations may submit written statements to the Board membership about the Board's mission and functions. Written statements may be submitted at any time or in response to the stated agenda of planned meeting of the Board.

All written statements shall be submitted to the DFO for the Board, and this individual will ensure that the written statements are provided to the membership for their consideration. Contact information for the Board's DFO can be obtained from the GSA's FACA Database—<http://www.facadatabase.gov/>.

The DFO, pursuant to 41 CFR 102–3.150, will announce planned meetings of the Board. The DFO, at that time, may provide additional guidance on the submission of written statements that are in response to the stated agenda for the planned meeting in question.

Dated: April 14, 2015.

Aaron Siegel,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 2015–08881 Filed 4–16–15; 8:45 am]

BILLING CODE 5001–06–P

DEPARTMENT OF DEFENSE

Department of the Navy

Meeting of the Board of Visitors of Marine Corps University

AGENCY: Department of the Navy, DOD.

ACTION: Notice of open meeting.

SUMMARY: The Board of Visitors of the Marine Corps University (BOV MCU) will meet to review, develop and provide recommendations on all aspects of the academic and administrative policies of the University; examine all aspects of professional military education operations; and provide such oversight and advice, as is necessary, to facilitate high educational standards and cost effective operations. The Board will be focusing primarily on the internal procedures of Marine Corps University. All sessions of the meeting will be open to the public.

DATES: The meeting will be held on Thursday, May 21, 2015 from 12:00 p.m.

until 3:30 p.m. and Friday, May 22, 2015 from 8:00 a.m. until 1:00 p.m.

ADDRESSES: The meeting will be held at the Marine Corps University in Quantico, Virginia. The address is: 2076 South Street, Marine Corps University, Quantico, Virginia 22134–5068.

FOR FURTHER INFORMATION CONTACT: Dr. Kimberly Florich, Faculty Development and Outreach Coordinator, Marine Corps University Board of Visitors, 2076 South Street, Quantico, Virginia 22134, telephone number 703–432–4682.

Dated: April 10, 2015.

N.A. Hagerty-Ford,

Commander, Office of the Judge Advocate General, U.S. Navy, Federal Register Liaison Officer.

[FR Doc. 2015–08865 Filed 4–16–15; 8:45 am]

BILLING CODE 3810–FF–P

DEPARTMENT OF DEFENSE

Department of the Navy

Meeting of the Secretary of the Navy Advisory Panel

AGENCY: Department of the Navy, DoD.

ACTION: Amendment.

SUMMARY: Announcement of the Secretary of the Navy Advisory Panel meeting scheduled for April 20, 2015, (**Federal Register**, Volume 80, No. 67, Wednesday, April 8, 2015) did not comply with 41 CFR 102–3.150(a). After subsequent review and pursuant to 41 CFR 102–3.150(b), the Advisory Committee Management Officer for the Department of the Defense waives the 15-calendar day notification requirement.

The Secretary of the Navy (SECNAV) Advisory Panel will meet 8:15 a.m. to 4:00 p.m. to review ways to establish a culture of innovation in the Department of the Navy. This meeting is opened to the public.

DATES: The meeting will be held on Monday, April 20, 2015, from 8:15 a.m. to 4:00 p.m.

ADDRESSES: The meeting will be held at the Pentagon, in Room 4B746, 1000 Navy Pentagon, Washington, DC 20350–1000.

Building Access: Public access is limited due to the Pentagon Security requirements. Any individual wishing to attend this meeting should contact Ms. Cassandra Dean at 703–697–2386 or Commander Randall Biggs at 703–695–3042 no later than April 13, 2015. Members of the public who do not have Pentagon access will be required to provide Name, Date of Birth and Social Security Number by April 13, 2015, in

order to obtain visitor's clearance. Public transportation is recommended as public parking is not available. Members of the public wishing to attend this meeting must enter through the Pentagon's Metro Entrance between 7:45 a.m. and 8:00 a.m. where they will need two forms of identification in order to receive a visitor badge and meet their escort. Members will then be escorted to Room 4B746 to attend the open of the meeting of the Advisory Panel. Members of the public must remain with the designated escort at all times while in the Pentagon. After the meeting is adjourned, members of the public will be escorted back to the Pentagon Metro Entrance.

FOR FURTHER INFORMATION CONTACT: Commander Randall Biggs, SECNAV Advisory Panel, 1000 Navy Pentagon, Washington, DC 20350–1000, 703–695–3042.

SUPPLEMENTARY INFORMATION: The agenda is as follows:

April 20, 2015, speakers and discussions on the Department of the Navy Culture of Innovation Initiatives.

Individuals or interested groups may submit written statements for consideration by the SECNAV Advisory Panel at any time or in response to the agenda of a schedule meeting. All requests must be submitted to the Designated Federal Officer (DFO) at the address detailed below. If the written statement is in response to the agenda mentioned in this meeting notice, it must be received at least five days prior to the meeting in question. The DFO will review all timely submissions with the SECNAV Advisory Panel before the meeting that is the subject of this notice. For further information write to: Deputy Under Secretary of the Navy, (Policy), Secretary of the Navy Advisory Panel, Designated Federal Officer, 1000 Navy Pentagon, Washington, DC 20350–1000.

Dated: April 10, 2015.

N.A. Hagerty-Ford,

Commander, Judge Advocate General's Corps, U.S. Navy, Federal Register Liaison Officer.

[FR Doc. 2015–08867 Filed 4–16–15; 8:45 am]

BILLING CODE 3810–FF–P

DEPARTMENT OF DEFENSE

Department of the Navy

Notice of Public Meeting on the Draft Environmental Impact Statement for Multiple Projects in Support of Marine Barracks Washington, DC

AGENCY: Department of the Navy, Department of Defense.

ACTION: Notice.

SUMMARY: Pursuant to Section (102)(2)(c) of the National Environmental Policy Act of 1969 (NEPA) (42 United States Code [U.S.C.] Sections 4321–4370h); the Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of NEPA (Title 40 Code of Federal Regulations (C.F.R.) Parts 1500–1508); Department of the Navy (DoN) Procedures for Implementing NEPA (32 CFR part 775); and Marine Corps NEPA directives (Marine Corps Order P5090.2A), the United States Marine Corps (Marine Corps) has prepared and filed with the U.S. Environmental Protection Agency (EPA) a Draft Environmental Impact Statement (EIS) that evaluates the potential environmental consequences that may result from implementation of repair, renovation, and construction projects at Marine Barracks Washington (MBW), District of Columbia (DC) anticipated to occur within an approximately 5-year planning horizon from the publication of the Record of Decision anticipated in 2016). The principal project analyzed in this Draft EIS is the replacement of a Bachelor Enlisted Quarters (BEQ) Complex (including supporting facilities and parking) currently housed in Building 20 at MBW. Depending on the alternative selected, the BEQ Complex replacement project may include land acquisition in DC. The Draft EIS also evaluates renovation and improvement projects to Building 7 at the Main Post; improvements to the MBW Annex gate at 7th and K Streets; and improvements to building facades, fencing, infrastructure, pedestrian amenities, and landscaping throughout the installation. The Draft EIS includes a programmatic evaluation of several additional projects anticipated to occur beyond the 5-year planning horizon for which information sufficient to conduct detailed NEPA analysis is not yet available. Principal among these projects is the potential reuse of Building 20 or the Building 20 site once the BEQ Complex has been relocated. Other longer-term projects include renovation of Building 9 to accommodate the consolidation of various administrative functions, as well as some additional landscaping and maintenance projects. Once these actions become sufficiently ripe for detailed analysis, additional NEPA analysis will be completed. A Notice of Intent to prepare this EIS was published in the **Federal Register** on September 6, 2013 (Vol. 78, No. 173, p. 54873).

With the filing of the Draft EIS, the DoN is initiating a 45-day public comment period and has scheduled a

public open house meeting to receive written and verbal comments on the Draft EIS. Federal, state, and local agencies and interested individuals are encouraged to attend the public meeting. This notice announces the dates and locations of the public meeting, and supplementary information about the environmental planning effort.

DATES AND ADDRESSES: The Draft EIS public review period begins April 10, 2015 and ends on May 26, 2015. The Marine Corps is holding an open house public meeting to inform the public about the Proposed Action and the alternatives under consideration, and to provide an opportunity for the public to comment on the Draft EIS. Marine Corps representatives will be on hand to discuss the Proposed Action, the NEPA process, and the analyses presented in the Draft EIS. The meeting will be held from 5:30 p.m. to 8:30 p.m. at Tyler Elementary School (1001 G Street SE., Washington, DC 20003) on Wednesday, April 22, 2015. The DoN will consider and respond to comments received on the Draft EIS when preparing the Final EIS. The DoN expects to issue the Final EIS in November 2015, at which time a Notice of Availability will be published in the **Federal Register** and local print media.

The Draft EIS has been distributed to Federal and local agencies, elected officials, and the interested public. The document can be viewed online and downloaded from www.mbweis.com/EISDocument.aspx.

Copies of the Draft EIS are available for public review at the following public libraries: Southeast Public Library, 403 7th Street SE., Washington, DC 20003; Southwest Public Library, 900 Wesley Place SW., Washington, DC 20004; and Northeast Public Library, 330 7th Street NE., Washington, DC 20022.

A copy of the Draft EIS will be made available upon written request to: MBW EIS Project Manager: Ms. Katherine Childs, 1314 Harwood Street SE., Building 212, Washington Navy Yard, DC 20374-5018 or via email at katherine.childs@navy.mil.

Comments: Attendees will be able to submit written or verbal comments at the public meeting. Comments may be mailed to MBW EIS Project Manager: Ms. Katherine Childs, 1314 Harwood Street SE., Building 212, Washington Navy Yard, DC 20374-5018, or submitted electronically at the EIS Web site, www.mbweis.com. Comments may be submitted anytime during the 45-day public review period, and must be postmarked or electronically dated on or before May 26, 2015, to ensure they

become part of the public record. All comments submitted during the official public review period will become part of the public record on the Draft EIS and will be addressed in the Final EIS.

FOR FURTHER INFORMATION CONTACT:

MBW EIS Project Manager: Ms. Katherine Childs, 1314 Harwood Street SE., Building 212, Washington Navy Yard, DC 20374-5018, (202) 685-0164. Please submit requests for special assistance, sign language interpretation for the hearing impaired, or other auxiliary aids at the public meeting to Ms. Childs by April 17, 2015.

SUPPLEMENTARY INFORMATION: The Proposed Action evaluated in the Draft EIS would occur within an approximate 5-year planning horizon from the publication of the Record of Decision anticipated in 2016, and address existing and anticipated facility deficiencies at MBW. MBW is part of a highly urbanized metropolitan area of DC, with the Main Post and Building 20 located at the intersection of 8th and I Streets SE. in the Capitol Hill neighborhood, the largest historic district and one of the most densely populated residential neighborhoods in the city. The MBW Annex is located at the intersection of 7th Street SE. and Virginia Avenue SE. in the Near Southeast neighborhood, which has been an emerging growth area as a result of revitalization efforts that began in the 1990s and is transitioning to an established neighborhood with a growing residential community.

The purpose of the Proposed Action is to address existing and anticipated facility deficiencies at MBW in order to better support the functions of the Marine Corps units assigned to MBW. The Proposed Action is needed for the Marine Corps to meet current Quality of Life (QOL), efficiency, sustainability, life safety, Anti-Terrorism and Force Protection (AT/FP) requirements, and facilities standards. Most of these requirements are set forth in the Department of Defense (DoD) Unified Facilities Criteria (UFCs) for planning, design, construction, sustainment, restoration, and modernization.

The existing BEQ (Building 20) has multiple deficiencies relating to force protection, minimum space requirements, QOL, life safety, sustainability, and energy efficiency and cannot be renovated or redesigned to meet current standards. No existing MBW property can accommodate the entire replacement BEQ requirement (BEQ, support facilities, and parking) at a single site. However, the below-grade parking at Building 20 could be retained to meet parking needs associated with

the replacement BEQ Complex. To comply with current standards and continue to meet MBW mission requirements, the Marine Corps needs to either acquire property, establish a tenant site on federal or DoD property, or select a site on DoD property to accommodate a portion of the replacement BEQ requirement (BEQ and support facilities) and construct a replacement BEQ near the MBW Main Post. The Proposed Action does not include any change to the MBW mission or staffing levels.

Building 7 interior renovations are required to improve space utilization, meet life safety standards, improve attainment of sustainability goals, and address certain AT/FP shortfalls.

The purpose and need for the following projects are aligned with fostering MBW integration with the community consistent with current UFC guidance:

- Improve the MBW Annex gate at 7th and K Streets SE to provide a “sense of arrival” for both installation personnel and visitors.

- Make aesthetic improvements (*e.g.*, signs, door awnings, lighting, and landscaping) so that all building exteriors present a more attractive, less utilitarian appearance to the surrounding neighborhood.

- Incorporate pedestrian-friendly amenities (*e.g.*, pedestrian paths, signage systems, seating, lighting, and landscaping) into MBW properties that are safe and appropriately sized to their surroundings.

Each of these projects is a separate, distinct, and independently complete and actionable project.

The Draft EIS also discusses the need for optimal reuse of Building 20 or the Building 20 site and long-term solutions for MBW space needs.

The Draft EIS evaluates five action alternatives. Projects analyzed in the Draft EIS and common to all five alternatives include:

- Replacement BEQ Complex: A multi-story BEQ Complex (including parking and support facilities) to replace the functions currently housed in Building 20. The proposed replacement BEQ Complex would be constructed to accommodate 125 standard Marine Corps 2+0 berthing rooms, which would provide a 250-bed sleeping capacity. In addition, the replacement BEQ Complex would accommodate the following supporting uses: Music training, enlisted dining facility, company administration space, classroom training space, fitness facility, and armory.

- Main Post renovation projects: Interior renovations to Building 7 at the Main Post.

- Projects to foster integration of MBW with the community: These include improvements to the MBW Annex gate at 7th and K Streets SE. and improvements to the building facades, fencing, infrastructure, pedestrian amenities, and landscaping throughout the installation.

Alternative 1—Site A. Under Alternative 1, the Marine Corps would acquire privately owned land and a government-owned right-of-way (ROW) for the proposed BEQ Complex. Alternative 1, Site A, consists of 3.0 acres in Squares 929 and 930 and an approximate 340-foot segment of L Street between 8th and 9th Streets SE. The affected segment of L Street SE. would be closed to vehicular and pedestrian traffic and street parking. For the purposes of this EIS, it is expected that the replacement BEQ Complex would be constructed within the L Street ROW.

Alternative 2—Site B. Under Alternative 2, the Marine Corps would acquire privately-owned land and a government-owned ROW for the replacement BEQ Complex. Alternative 2, Site B, consists of 1.8 acres in Square 976 and an approximate 315-foot segment of the L Street ROW between 10th and 11th Streets SE. Unlike Alternative 1, there would be no construction within the L Street ROW. This segment of L Street would be closed to vehicular traffic and on-street parking, but it would remain open for pedestrians. No structures would be constructed within the adjacent Virginia Avenue Park, and the park would remain open to public use. The segment of the ROW and the adjacent portion of Virginia Avenue Park are included within this site as a means of satisfying the AT/FP vehicular standoff distance, while also allowing public use to continue.

Alternative 3—Site C. The land comprising Site C is federally-owned, but subject to a master development plan and agreement between GSA and a private developer (Forest City Washington) authorized by prior special legislation. An agreement with Forest City Washington and GSA to transfer Site C to the DoN/USMC would be required in order for Site C to be selected. Under Alternative 3, the Marine Corps obtain appropriate real estate interest in a portion of the federally owned land at the Southeast Federal Center (SEFC) for the proposed replacement BEQ Complex and a 3-story above ground parking structure.

Alternative 3, Site C, is 2.1 acres within Square 853, bounded by M Street SE. to the north and Tingey Street SE. to the south. In addition to having to reach an

agreement with Forest City Washington and GSA, under this alternative, the SEFC “The Yards” Redevelopment Master Plan would need to be revised.

Alternative 4—Site D. Under Alternative 4, the Marine Corps would establish a tenant site on 1.67 acres of federally owned land at the northern end of Square 953, within the boundary of the Washington Navy Yard (WNY). The existing land use includes an administrative building (Building 169) as well as tennis and basketball courts east of Building 169, all of which have been identified as areas for potential redevelopment in the WNY Master Plan (approved by the National Capital Planning Commission on November 6, 2014). Also included is the parking lot south of Building 169 (16 spaces) and potentially a portion of Poor Street that connects Parsons Avenue and 10th Street SE. BEQ construction on this site would require the demolition of Building 169, which is currently occupied by MBW functions. The existing below-grade parking at the Building 20 site would be maintained to satisfy the BEQ Complex parking requirement.

Alternative 5—Site E. Under Alternative 5, the Marine Corps would use 0.89-acre within the boundary of the MBW Annex (Squares 881 and 881W). For the purposes of this EIS, it is expected that the replacement BEQ Complex construction would occur within the 6th Street L’Enfant Plan viewshed between Building 25 (Annex building) and Building 26 (Annex parking garage). The new facility would be sited as close to Building 25 as possible and would connect via a breezeway between the replacement BEQ Complex and the western end of Building 25. The site currently contains a basketball court that would be relocated to the north of Building 25. The existing below-grade parking at the Building 20 site would be maintained to satisfy the BEQ Complex parking requirement.

The Marine Corps has not identified a preferred alternative at this time. Each of the action alternatives involve trade-offs among economic, technical, environmental, and Marine Corps statutory mission requirements. A preferred alternative will be selected in the Final EIS after public comments on the Draft EIS are evaluated.

Dated: April 10, 2015.

N.A. Hagerty-Ford,

Commander, Judge Advocate General’s Corps, U.S. Navy, Federal Register Liaison Officer.

[FR Doc. 2015–08863 Filed 4–16–15; 8:45 am]

BILLING CODE 3810–FF–P

DEPARTMENT OF EDUCATION

[Docket No. ED–2015–ICCD–0007]

Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Comment Request; Reaffirmation Agreement

AGENCY: Federal Student Aid (FSA), Department of Education (ED).

ACTION: Notice.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 3501 *et seq.*), ED is proposing a new information collection.

DATES: Interested persons are invited to submit comments on or before May 18, 2015.

ADDRESSES: Comments submitted in response to this notice should be submitted electronically through the Federal eRulemaking Portal at <http://www.regulations.gov> by selecting Docket ID number ED–2015–ICCD–0007 or via postal mail, commercial delivery, or hand delivery. If the regulations.gov site is not available to the public for any reason, ED will temporarily accept comments at ICDocketMgr@ed.gov. *Please note that comments submitted by fax or email and those submitted after the comment period will not be accepted; ED will ONLY accept comments during the comment period in this mailbox when the regulations.gov site is not available.* Written requests for information or comments submitted by postal mail or delivery should be addressed to the Director of the Information Collection Clearance Division, U.S. Department of Education, 400 Maryland Avenue SW., LBJ, Mailstop L–OM–2–E319, Room 2E105, Washington, DC 20202.

FOR FURTHER INFORMATION CONTACT: For specific questions related to collection activities, please contact Ian Foss, 202–377–3681.

SUPPLEMENTARY INFORMATION: The Department of Education (ED), in accordance with the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3506(c)(2)(A)), provides the general public and Federal agencies with an opportunity to comment on proposed, revised, and continuing collections of information. This helps the Department assess the impact of its information collection requirements and minimize the public’s reporting burden. It also helps the public understand the Department’s information collection requirements and provide the requested data in the desired format. ED is soliciting comments on the proposed information collection request (ICR) that

is described below. The Department of Education is especially interested in public comment addressing the following issues: (1) Is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be collected; and (5) how might the Department minimize the burden of this collection on the respondents, including through the use of information technology. Please note that written comments received in response to this notice will be considered public records.

Title of Collection: Reaffirmation Agreement.

OMB Control Number: 1845—NEW.

Type of Review: A new information collection.

Respondents/Affected Public: Individuals or Households, Private Sector, State, Local and Tribal Governments.

Total Estimated Number of Annual Responses: 28,880.

Total Estimated Number of Annual Burden Hours: 3,465.

Abstract: The HEA provides for a maximum amount that a borrower can receive per year and in total. If a borrower receives more than one of these maximum amounts, the borrower is rendered ineligible for further title IV aid (including Federal Pell Grants, Federal Supplemental Educational Opportunity Grants, Federal Work-Study, and Teacher Education Assistance for Higher Education (TEACH) Grants) unless the borrower repays the excess amount or agreed to repay the excess amount according to the terms and conditions of the promissory note that the borrower signed. Agreeing to repay the excess amount according to the terms and conditions of the promissory note that the borrower signed is called "reaffirmation". ED and FFEL Program lenders will use the information on this form to enforce the borrower's obligation to repay the total FFEL or Direct Loan debt that the borrower obtained including the amounts in excess of the annual or aggregate loan limit.

Dated: April 14, 2015.

Stephanie Valentine,

Acting Director, Information Collection Clearance Division, Office of the Chief Privacy Officer, Office of Management.

[FR Doc. 2015-08855 Filed 4-16-15; 8:45 am]

BILLING CODE 4000-01-P

DEPARTMENT OF EDUCATION

[Docket No.: ED-2015-ICCD-0044]

Agency Information Collection Activities; Comment Request; Understanding the Impact of Providing Information to Parents About the Role of Algebra II: An Opportunistic Study

AGENCY: Institute of Education Sciences/ National Center for Education Statistics (IES), Department of Education (ED).

ACTION: Notice.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 3501 *et seq.*), ED is proposing a new information collection.

DATES: Interested persons are invited to submit comments on or before June 16, 2015.

ADDRESSES: Comments submitted in response to this notice should be submitted electronically through the Federal eRulemaking Portal at <http://www.regulations.gov> by selecting Docket ID number ED-2015-ICCD-0044 or via postal mail, commercial delivery, or hand delivery. If the www.regulations.gov site is not available to the public for any reason, ED will temporarily accept comments at ICDocketMgr@ed.gov.

Please note that comments submitted by fax or email and those submitted after the comment period will not be accepted; ED will ONLY accept comments during the comment period in this mailbox when the www.regulations.gov site is not available. Written requests for information or comments submitted by postal mail or delivery should be addressed to the Director of the Information Collection Clearance Division, U.S. Department of Education, 400 Maryland Avenue SW., LBJ, Mailstop L-OM-2-2E319, Room 2E105, Washington, DC 20202.

FOR FURTHER INFORMATION CONTACT: For specific questions related to collection activities, please contact Christopher Boccanfuso, (202) 219-1674.

SUPPLEMENTARY INFORMATION: The Department of Education (ED), in accordance with the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3506(c)(2)(A)), provides the general public and Federal agencies with an opportunity to comment on proposed, revised, and continuing collections of information. This helps the Department assess the impact of its information collection requirements and minimize the public's reporting burden. It also helps the public understand the Department's information collection requirements and provide the requested data in the desired format. ED is soliciting comments on the proposed

information collection request (ICR) that is described below. The Department of Education is especially interested in public comment addressing the following issues: (1) Is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be collected; and (5) how might the Department minimize the burden of this collection on the respondents, including through the use of information technology. Please note that written comments received in response to this notice will be considered public records.

Title of Collection: Understanding the Impact of Providing Information to Parents about the Role of Algebra II: An Opportunistic Study.

OMB Control Number: 1850—NEW.

Type of Review: A new information collection.

Respondents/Affected Public: State, Local and Tribal Governments.

Total Estimated Number of Annual Responses: 1,468.

Total Estimated Number of Annual Burden Hours: 132.

Abstract: In June 2013, Texas Governor Rick Perry signed House Bill (HB) 5 into law, which changed high school graduation requirements for public school students in Texas. Prior to this, most students were required to complete algebra II in order to graduate from high school. After the enactment of HB 5, completing algebra II is optional—students may elect to complete algebra II as part of two of the graduation plans offered under HB 5. REL Southwest is working with the Texas Education Agency (TEA) to carry out an opportunistic experiment to determine if directly providing parents/guardians, prior to students' selection of their courses, with information on the importance of completing algebra II for college access and success has an impact on the percentage of students who enroll in and complete algebra II by the end of their junior year. REL Southwest will investigate the impact of providing parents/guardians with information about the role of algebra II in college access and success in a randomized controlled trial in which the treatment schools provide parents/guardians of students with information about the role of algebra II in college access and success, while control schools continue business-as-usual.

Dated: April 14, 2015.

Stephanie Valentine,

Acting Director, Information Collection Clearance Division, Privacy, Information and Records Management Services, Office of Management.

[FR Doc. 2015-08854 Filed 4-16-15; 8:45 am]

BILLING CODE 4000-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 8221-094]

Alaska Energy Authority; Notice of Application Accepted for Filing, Ready for Environmental Analysis, Soliciting Comments, Motions To Intervene, Protests, Recommendations, Terms and Conditions, and Fishway Prescriptions

Take notice that the following hydroelectric application has been filed with the Commission and is available for public inspection:

a. *Type of Application:* Amendment of License.

b. *Project No.:* 8221-094.

c. *Date Filed:* March 12, 2015.

d. *Applicant:* Alaska Energy Authority.

e. *Name of Project:* Bradley Lake Hydroelectric Project.

f. *Location:* The project is located on the Bradley River in Kenai Peninsula Borough, Alaska. The project occupies federal lands administered by the Bureau of Land Management.

g. *Filed Pursuant to:* Federal Power Act, 16 U.S.C. 791a-825r.

h. *Applicant Contact:* Ms. Sara Fisher-Goad, Executive Director, 813 West Northern Lights Blvd., Anchorage, AK 99503, (907) 771-3012.

i. *FERC Contact:* Mr. Steven Sachs (202) 502-8666 or *Steven.Sachs@ferc.gov*.

j. Deadline for filing motions to intervene and protests, comments, recommendations, terms and conditions, and fishway prescriptions is 60 days from the issuance date of this notice by the Commission; reply comments are due 105 days from the issuance date of this notice by the Commission. The Commission strongly encourages electronic filing. Please file any motion to intervene, protest, comments, and/or recommendations using the Commission's eFiling system at <http://www.ferc.gov/docs-filing/efiling.asp>. Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at <http://www.ferc.gov/docs-filing/>

ecomment.asp. You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov*, (866) 208-3676 (toll free), or (202) 502-8659 (TTY). In lieu of electronic filing, please send a paper copy to: Secretary, Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426. The first page of any filing should include docket number P-8221-094.

k. *Description of Request:* The applicant proposes to construct a new 16-foot-high, 60-foot-wide diversion dam located on the West Fork Upper Battle Creek, 6.1 miles upstream of the mouth of Battle Creek. The diversion dam would feed a 6-foot-diameter, 9,100-foot-long underground steel pipe emptying into a rip-rap stilling basin. Water would then travel through a 1,000 foot-long canal to a natural stream channel draining to Bradley Lake, the main reservoir for the project. The applicant also proposes to construct 2.9 miles of new access roads for construction and maintenance of the new facilities. The proposal would not change the authorized installed capacity of the project; however, it is expected to increase the average annual generation by 37,000 megawatt-hours. Most of the new facilities would be constructed on lands owned by the State of Alaska though some would be constructed on federal land already occupied by the project and administered by the Bureau of Land Management.

l. *Locations of the Application:* A copy of the application is available for inspection and reproduction at the Commission's Public Reference Room, located at 888 First Street NE., Room 2A, Washington, DC 20426, or by calling (202) 502-8371. This filing may also be viewed on the Commission's Web site at <http://www.ferc.gov/docs-filing/efiling.asp>. Enter the docket number excluding the last three digits in the docket number field to access the document. You may also register online at <http://www.ferc.gov/docs-filing/esubscription.asp> to be notified via email of new filings and issuances related to this or other pending projects. For assistance, call 1-866-208-3676 or email *FERCOnlineSupport@ferc.gov*, for TTY, call (202) 502-8659. A copy is also available for inspection and reproduction at the address in item (h) above.

m. Individuals desiring to be included on the Commission's mailing list should so indicate by writing to the Secretary of the Commission.

n. *Comments, Protests, or Motions to Intervene:* Anyone may submit comments, a protest, or a motion to

intervene in accordance with the requirements of Rules of Practice and Procedure, 18 CFR 385.210, .211, .214. In determining the appropriate action to take, the Commission will consider all protests or other comments filed, but only those who file a motion to intervene in accordance with the Commission's Rules may become a party to the proceeding. Any comments, protests, or motions to intervene must be received on or before the specified comment date for the particular application.

o. *Filing and Service of Responsive Documents:* All filings must (1) bear in all capital letters the title "COMMENTS", "PROTEST", "MOTION TO INTERVENE", "TERMS AND CONDITIONS" or "FISHWAY PRESCRIPTIONS" as applicable; (2) set forth in the heading the name of the applicant and the project number of the application to which the filing responds; (3) furnish the name, address, and telephone number of the person protesting or intervening; and (4) otherwise comply with the requirements of 18 CFR 385.2001 through 385.2005. All comments, motions to intervene, or protests must set forth their evidentiary basis and otherwise comply with the requirements of 18 CFR 4.34(b). All comments, motions to intervene, or protests should relate to project works which are the subject of the amendment. Agencies may obtain copies of the application directly from the applicant. A copy of any protest or motion to intervene must be served upon each representative of the applicant specified in the particular application. If an intervener files comments or documents with the Commission relating to the merits of an issue that may affect the responsibilities of a particular resource agency, they must also serve a copy of the document on that resource agency. A copy of all other filings in reference to this application must be accompanied by proof of service on all persons listed in the service list prepared by the Commission in this proceeding, in accordance with 18 CFR 4.34(b) and 385.2010.

Dated: April 13, 2015.

Kimberly D. Bose,
Secretary.

[FR Doc. 2015-08878 Filed 4-16-15; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY**Federal Energy Regulatory Commission**

[Docket No. CP15-137-000]

Rockies Express Pipeline LLC; Notice of Application

Take notice that on March 30, 2015, Rockies Express Pipeline LLC. (REX), 370 Van Gordon Street, Lakewood, Colorado 80228-1519, filed with the Federal Energy Regulatory Commission an application under section 7(c) of the Natural Gas Act (NGA) to construct, install, own, operate and maintain certain additional mainline compression and ancillary facilities that upon completion will comprise REX's proposed REX Zone 3 Capacity Enhancement Project. Specifically, the REX Zone 3 Capacity Enhancement Project facilities, upon construction, will increase the Zone 3 east-to-west capacity by 800,000 Dekatherms per day (Dth/d) from receipts at Clarington, Ohio to corresponding deliveries of 520,000 Dth/d and 280,000 Dth/d to Lebanon, Ohio and Moultrie County, Illinois, respectively.

The complete application is on file with the Commission and open for public inspection, and is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link. It is also available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the Web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please email FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Any questions regarding this application should be directed to David Haag, Vice President of Regulatory, Rockies Express Pipeline LLC, 370 Van Gordon Street, Lakewood, Colorado 80228-1519, phone (303) 763-3258.

Pursuant to section 157.9 of the Commission's rules, 18 CFR 157.9, within 90 days of this Notice the Commission staff will either: Complete its environmental assessment (EA) and place it into the Commission's public record (eLibrary) for this proceeding; or issue a Notice of Schedule for Environmental Review. If a Notice of Schedule for Environmental Review is issued, it will indicate, among other milestones, the anticipated date for the Commission staff's issuance of the final environmental impact statement (FEIS) or EA for this proposal. The filing of the EA in the Commission's public record

for this proceeding or the issuance of a Notice of Schedule for Environmental Review will serve to notify federal and state agencies of the timing for the completion of all necessary reviews, and the subsequent need to complete all federal authorizations within 90 days of the date of issuance of the Commission staff's FEIS or EA.

There are two ways to become involved in the Commission's review of this project. First, any person wishing to obtain legal status by becoming a party to the proceedings for this project should, on or before the comment date stated below, file with the Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426, a motion to intervene in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 385.214 or 385.211) and the Regulations under the NGA (18 CFR 157.10). A person obtaining party status will be placed on the service list maintained by the Secretary of the Commission and will receive copies of all documents filed by the applicant and by all other parties. A party must submit 7 copies of filings made in the proceeding with the Commission and must mail a copy to the applicant and to every other party. Only parties to the proceeding can ask for court review of Commission orders in the proceeding.

However, a person does not have to intervene in order to have comments considered. The second way to participate is by filing with the Secretary of the Commission, as soon as possible, an original and two copies of comments in support of or in opposition to this project. The Commission will consider these comments in determining the appropriate action to be taken, but the filing of a comment alone will not serve to make the filer a party to the proceeding. The Commission's rules require that persons filing comments in opposition to the project provide copies of their protests only to the party or parties directly involved in the protest.

Persons who wish to comment only on the environmental review of this project should submit an original and two copies of their comments to the Secretary of the Commission. Environmental commenters will be placed on the Commission's environmental mailing list, will receive copies of the environmental documents, and will be notified of meetings associated with the Commission's environmental review process. Environmental commenters will not be required to serve copies of filed documents on all other parties. However, the non-party commenters

will not receive copies of all documents filed by other parties or issued by the Commission (except for the mailing of environmental documents issued by the Commission) and will not have the right to seek court review of the Commission's final order.

The Commission strongly encourages electronic filings of comments, protests, and interventions via the internet in lieu of paper. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site (www.ferc.gov) under the "e-Filing" link. Persons unable to file electronically should submit an original and 5 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426.

Comment Date: 5 p.m. Eastern Daylight Savings Time on May 4, 2015.

Dated: April 13, 2015.

Kimberly D. Bose,
Secretary.

[FR Doc. 2015-08877 Filed 4-16-15; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY**Federal Energy Regulatory Commission**

[Docket No. IC15-6-000]

Commission Information Collection Activities (FERC-725B); Comment Request; Extension

AGENCY: Federal Energy Regulatory Commission.

ACTION: Notice of information collection and request for comments.

SUMMARY: In compliance with the requirements of the Paperwork Reduction Act of 1995, 44 U.S.C. 3506(c)(2)(A), the Federal Energy Regulatory Commission (Commission or FERC) is soliciting public comment on the requirements and burden¹ of the information collection described below.

DATES: Comments on the collection of information are due June 16, 2015.

ADDRESSES: You may submit comments (identified by Docket No. IC15-6-000) by either of the following methods:

- *eFiling at Commission's Web site:* <http://www.ferc.gov/docs-filing/efiling.asp>.
- *Mail/Hand Delivery/Courier:* Federal Energy Regulatory Commission,

¹ The Commission defines burden as the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. For further explanation of what is included in the information collection burden, reference 5 Code of Federal Regulations 1320.3.

Secretary of the Commission, 888 First Street NE., Washington, DC 20426.

Instructions: All submissions must be formatted and filed in accordance with submission guidelines at: <http://www.ferc.gov/help/submission-guide.asp>. For user assistance contact FERC Online Support by email at ferconlinesupport@ferc.gov, or by phone at: (866) 208-3676 (toll-free), or (202) 502-8659 for TTY.

Docket: Users interested in receiving automatic notification of activity in this docket or in viewing/downloading comments and issuances in this docket may do so at <http://www.ferc.gov/docs-filing/docs-filing.asp>.

FOR FURTHER INFORMATION CONTACT:

Ellen Brown may be reached by email at DataClearance@FERC.gov, telephone at (202) 502-8663, and fax at (202) 273-0873.

SUPPLEMENTARY INFORMATION:

Type of Request: Three-year extension of the information collection requirements for the collection described below with no changes to the current reporting requirements.

Comments: Comments are invited on: (1) Whether the collection of information is necessary for the proper performance of the functions of the Commission, including whether the information will have practical utility; (2) the accuracy of the agency's estimates of the burden and cost of the collection of information, including the validity of the methodology and assumptions used; (3) ways to enhance the quality, utility and clarity of the information collection; and (4) ways to minimize the burden of the collection of information on those who are to respond, including the use of automated collection techniques or other forms of information technology.

FERC-725B, Mandatory Reliability Standards for Critical Infrastructure Protection

OMB Control No.: 1902-0248.

Abstract: The information collected by the FERC-725B, Reliability Standards for Critical Infrastructure Protection, is required to implement the statutory provisions of Section 215 of the Federal Power Act (FPA) (16 U.S.C. 824o).

On January 18, 2008, the Commission issued order 706,² approving eight Critical Infrastructure Protection (CIP) Reliability Standards submitted by the North American Electric Reliability Corporation (NERC) for Commission approval. The CIP version 1 Reliability Standards, (CIP-002-1 through CIP-009-1),³ require certain users, owners, and operators of the Bulk-Power System to comply with specific requirements to safeguard critical cyber assets. These standards help protect the nation's Bulk-Power System against potential disruptions from cyber-attacks. The CIP Reliability Standards include one actual reporting requirement and several recordkeeping requirements. Specifically, CIP-008-1 requires responsible entities to report cyber security incidents to the Electricity Sector-Information Sharing and Analysis Center (ES-ISAC). In addition, the eight CIP Reliability Standards require responsible entities to develop various policies, plans, programs, and procedures. However, the CIP Reliability Standards do not require a responsible entity to report to the Commission, ERO or Regional Entities, the various policies, plans, programs and procedures. Nonetheless, a showing of the documented policies, plans, programs and procedures is required to demonstrate compliance with the CIP Reliability Standards.

The Commission approved minor changes in CIP versions 2 and 3 Reliability Standards on September 30, 2009, and March 31, 2010,⁴ respectively. On April 19, 2012, the Commission issued Order No. 761, approving the CIP version 4 Standards (CIP-002-4 through CIP-009-4) and an implementation plan that scheduled their enforcement to begin October 1, 2014.⁵ The fundamental change in the CIP version 4 Standards was that all

² *Mandatory Reliability Standards for Critical Infrastructure Protection*, Order No. 706, 122 FERC ¶ 61,040.

³ Every version of the CIP Reliability Standards may be found on the NERC Web site at <http://www.nerc.com/pa/Stand/Reliability%20Standards%20Complete%20Set/RSCompleteSet.pdf>.

⁴ 129 FERC ¶ 61,236 (2009) (approving Version 2 of the CIP Reliability Standards); *North American Electric Reliability Corp.*, and 130 FERC ¶ 61,271 (2010) (approving Version 3 of the CIP Reliability Standards).

⁵ *Version 4 Critical Infrastructure Protection Reliability Standards*, Order No. 761, 77 FR 24,594 (Apr. 25, 2012), 139 FERC ¶ 61,058 (2012), *order denying reh'g*, 140 FERC ¶ 61,109 (2012).

subject entities would use the same 'bright line' criteria to determine which of the facilities they owned were subject to the required policies, plans, programs and procedures (which remained nearly the same as for prior versions).

On November 22, 2013, the Commission issued Order No. 791, approving the CIP version 5 Standards (CIP-002-5 through CIP-009-5, CIP-010-1 and CIP-011-1) and the proposed implementation plan. The CIP version 5 Standards are currently scheduled to be implemented and enforceable beginning April 2016. Order No. 791 eliminated the enforceability of the CIP version 4 Standards. The Commission also approved nineteen new or revised definitions associated with the CIP version 5 Standards for inclusion in the Glossary of Terms Used in NERC Reliability Standards (NERC Glossary). The CIP version 5 Standards identify and categorize BES Cyber Systems using a new methodology based on whether a BES Cyber System has a Low, Medium, or High Impact on the reliable operation of the bulk electric system. At a minimum, a BES Cyber System must be categorized as a Low Impact asset. Once a BES Cyber System is categorized, a responsible entity must comply with the associated requirements of the CIP version 5 Standards that apply to the impact category. The CIP version 5 Standards include 12 requirements with new cyber security controls, which address Electronic Security Perimeters (CIP-005-5), Systems Security Management (CIP-007-5), Incident Reporting and Response Planning (CIP-008-5), Recovery Plans for BES Cyber Systems (CIP-009-5), and Configuration Change Management and Vulnerability Assessments (CIP-010-1).

Type of Respondent: Entities registered with the North American Electric Reliability Corporation.

Estimate of Annual Burden: There are three tables presenting burden associated with CIP Reliability Standards in the following section.

- The first table illustrates burden associated with CIP version 5 Reliability Standards.
- The second table illustrates burden associated with CIP version 3 and 4 Reliability Standards.
- The third and last table is a summation of the total burden for all active CIP-related Reliability Standards (*i.e.* CIP Versions 3-5).

ANNUAL BURDEN RELATED TO CIP RELIABILITY STANDARDS
[Version 5]

Groups of registered entities	Classes of entity's facilities requiring CIP	Number of entities	Total hours in year 1 (hours)	Total hours in year 2 (hours)	Total hours in year 3 (hours)
Group A	Low	41	2,540	2,540	564
Group B	Low	1,058	554,392	554,392	110,032
Group B	Medium	260	128,960	64,896	64,896
Group C	Low	316	165,584	165,584	32,864
Group C	Medium (New)	78	1,248	19,136	19,136
Group C	Low (Blackstart)	283	22,640	-206,024	-206,024
Group C	Medium or High	316	257,856	131,456	131,456
Total .....	.....	.....	1,133,220	731,980	152,924

The total annual burden (related to CIP Version 5 only) is 672,708 hours when averaging Years 1–3 [(1,133,220 hours + 731,980 hours + 152,924 hours) ÷ 3 = 672,708 hours]. The total annual cost averaged over Years 1–3 is \$50,883,633

(672,708 hours * \$75.64⁶ = \$50,883,633).
Regarding CIP standards unaffected by CIP Version 5, the estimated burden has been adjusted to account for a reduction in affected entities.⁷ The applicable estimate related to CIP

Version 3 and 4 standards (related to the active components) is provided in the table below. (For display purposes, the numbers in the tables below have been rounded, however exact figures were used in the calculations.)

BURDEN RELATED TO CIP RELIABILITY STANDARDS
[Version 3 and version 4]⁸

Number of respondents (1)	Annual number of responses per respondent (2)	Total number of responses (1)*(2)=(3)	Average burden and cost per response (4)	Total annual burden hours and total annual cost (3)*(4)=(5)	Cost per respondent (\$) (5)÷(1)
1,415	1	1,415	⁹ 383 \$28,937	¹⁰ 541,334 \$40,946,496	\$28,937

The following items represent the estimated total annual burden for FERC–725B and includes all burden associated with CIP Reliability Standards.¹¹

- *Number of respondents:* 1,415 (Not all entities with CIP-related functions will be obligated to comply with every CIP reliability standard.)
- *Total Annual Burden Hours:* 1,214,042.
- *Total Annual Cost:* \$91,830,137 (1,214,042 hours * \$75.64 = \$91,830,137).
- *Average Cost per Respondent:* \$64,898¹² (\$91,830,137 ÷ 1,415 entities = \$64,898).

Dated: April 13, 2015.
Kimberly D. Bose,
Secretary.
[FR Doc. 2015–08875 Filed 4–16–15; 8:45 am]
BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 184–246]

El Dorado Irrigation District; Notice of Application Accepted for Filing, Soliciting Comments, Motions To Intervene, and Protests

Take notice that the following hydroelectric application has been filed

with the Commission and is available for public inspection:

- a. *Type of Application:* Application for Temporary Variance of Minimum Flow Requirements.
- b. *Project No.:* 184–246.
- c. *Date Filed:* April 9, 2015.
- d. *Applicant:* El Dorado Irrigation District (licensee).
- e. *Name of Project:* El Dorado Project.
- f. *Location:* South Fork American River and its tributaries in El Dorado, Alpine, and Amador counties, California.
- g. *Filed Pursuant to:* Federal Power Act, 16 U.S.C. 791(a)–825(r).
- h. *Applicant Contact:* Brian Deason, Hydroelectric Compliance Analyst, (530) 642–4064, or bdeason@eid.org.
- i. *FERC Contact:* John Aedo, (415) 369–3335, or john.aedo@ferc.gov.

⁶The estimates for cost per response are derived using the following formula: Average Burden Hours per Response * \$75.64 per Hour = Average Cost per Response. The hourly cost figure comes from May 2014 data on the Bureau of Labor Statistics Web site (http://www.bls.gov/oes/current/naics2_22.htm). The figure is a mathematical average of the cost of wages and benefits related to legal services (\$129.68), technical employees (\$58.17), and administrative support (\$39.12).

⁷The estimate has been decreased from 1,475 to 1,415. The NERC Compliance Registry indicated that as of 1/14/2015, 1,415 entities were registered for at least one CIP-related function/responsibility.

⁸Reliability Standards CIP–002–3, CIP–003–3, CIP–004–3a, CIP–005–3a, CIP–006–3a, CIP–007–3c, CIP–008–3, and CIP–009–3.

⁹This figure is rounded for display in the table. The actual number is 382.56813 and is used in the calculations above.

¹⁰This figure is rounded for display in the table. The actual number is 541,333.91 and is used in the calculations above.

¹¹CIP Versions 3 and 4 (remaining components of Version 3 and 4), and 5.

¹²This figure is rounded. The actual number is 64,897.623.

j. Deadline for filing comments, motions to intervene, protests, and recommendations is 15 days from the issuance date of this notice by the Commission (April 28, 2015). The Commission strongly encourages electronic filing. Please file motions to intervene, protests, comments, or recommendations using the Commission's eFiling system at <http://www.ferc.gov/docs-filing/efiling.asp>. Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at <http://www.ferc.gov/docs-filing/ecomment.asp>. You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov, (866) 208-3676 (toll free), or (202) 502-8659 (TTY). In lieu of electronic filing, please send a paper copy to: Secretary, Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426. Please include the project number (P-184-246) on any comments, motions to intervene, protests, or recommendations filed.

k. *Description of Request*: The licensee requests a modification of its previous March 25, 2015 request for temporary flow variance, which is currently pending before the Commission. Specifically, the licensee requests an expanded temporary flow variance at the South Fork American River below Kyburz location, such that flows are reduced: from required 60 cubic feet per second (cfs) to 45 cfs from May 1-15; from the required 60 cfs to 30 cfs from May 16-31; from the required 60 cfs to 18 cfs in June; from the required 40 cfs to 15 cfs in July; and from the required 18 cfs to 15 cfs in August.

The licensee states that the revised request is in response to worsening drought conditions in the project area, including record low snowpack and accelerated spring runoff that has occurred this year. The licensee also states that it maintains its previous request for temporary flow variances in Caples Creek, Echo Creek, Silver Fork American River and Pyramid Creek.

l. *Locations of the Application*: A copy of the application is available for inspection and reproduction at the Commission's Public Reference Room, located at 888 First Street NE., Room 2A, Washington, DC 20426, or by calling (202) 502-8371. This filing may also be viewed on the Commission's Web site at <http://www.ferc.gov/docs-filing/elibrary.asp>. Enter the docket number excluding the last three digits in the docket number field to access the document. You may also register online

at <http://www.ferc.gov/docs-filing/esubscription.asp> to be notified via email of new filings and issuances related to this or other pending projects. For assistance, call 1-866-208-3676 or email FERCOnlineSupport@ferc.gov, for TTY, call (202) 502-8659. A copy is also available for inspection and reproduction at the address in item (h) above.

m. Individuals desiring to be included on the Commission's mailing list should so indicate by writing to the Secretary of the Commission.

n. *Comments, Protests, or Motions to Intervene*: Anyone may submit comments, a protest, or a motion to intervene in accordance with the requirements of Rules of Practice and Procedure, 18 CFR 385.210, .211, .214. In determining the appropriate action to take, the Commission will consider all protests or other comments filed, but only those who file a motion to intervene in accordance with the Commission's Rules may become a party to the proceeding. Any comments, protests, or motions to intervene must be received on or before the specified comment date for the particular application.

o. *Filing and Service of Responsive Documents*: Any filing must (1) bear in all capital letters the title "COMMENTS", "PROTEST", or "MOTION TO INTERVENE" as applicable; (2) set forth in the heading the name of the applicant and the project number of the application to which the filing responds; (3) furnish the name, address, and telephone number of the person protesting or intervening; and (4) otherwise comply with the requirements of 18 CFR 385.2001 through 385.2005. All comments, motions to intervene, or protests must set forth their evidentiary basis and otherwise comply with the requirements of 18 CFR 4.34(b). All comments, motions to intervene, or protests should relate to project works which are the subject of the variance. Agencies may obtain copies of the application directly from the applicant. A copy of any protest or motion to intervene must be served upon each representative of the applicant specified in the particular application. If an intervener files comments or documents with the Commission relating to the merits of an issue that may affect the responsibilities of a particular resource agency, they must also serve a copy of the document on that resource agency. A copy of all other filings in reference to this application must be accompanied by proof of service on all persons listed in the service list prepared by the Commission in this proceeding, in

accordance with 18 CFR 4.34(b) and 385.2010.

Dated: April 13, 2015.

Kimberly D. Bose,
Secretary.

[FR Doc. 2015-08876 Filed 4-16-15; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP15-144-000]

Florida Gas Transmission, LLC; Notice of Application

Take notice that on March 31, 2015 Florida Gas Transmission Company, LLC (FGT), 1300 Main St., Houston, Texas 77002, filed in Docket No. CP15-144-000, an application pursuant to section 7(c) of the Commission's Regulations under the Natural Gas Act and Parts 157 of the Federal Energy Regulatory Commission's (Commission) regulations requesting authorization to construct, own, and operate: (1) Approximately 3.0 miles of 30-inch mainline loop extension (Branford Loop); (2) one new reciprocating 5,000 horsepower compressor unit and building at Compressor Station (CS) 16; (3) re-wheel an existing turbine compressor unit at CS 16; (4) approximately 5.7 miles of 20-inch loop extension (Jacksonville Loop); and (5) a new regulator station and appurtenant auxiliary facilities, all known as its Jacksonville Expansion Project. The project will provide an initial 60,000 MMBtu/d, and an expansion of 15,000 MMBtu/d of firm transportation to two existing delivery points for Peoples Gas System (PGS), a division of Tampa Electric Company all in Suwanee, Bradford, Columbia and Clay Counties, Florida, all as more fully set forth in the application which is on file with the Commission and open to public inspection. This filing may be viewed on the web at <http://www.ferc.gov> using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, please contact FERC at FERCOnlineSupport@ferc.gov or call toll-free, (886) 208-3676 or TTY, (202) 502-8659.

Any questions regarding this Application should be directed to Stephen Veatch, Senior Director of Certificates & Reporting, Florida Gas Transmission Company, LLC, 1300 Main St., Houston, Texas, 77002, or call (713) 989-2024, or fax (713) 989-1205,

or via eMail stephen.veatch@energytransfer.com.

Pursuant to section 157.9 of the Commission's rules, 18 CFR 157.9, within 90 days of this Notice the Commission staff will either: Complete its environmental assessment (EA) and place it into the Commission's public record (eLibrary) for this proceeding; or issue a Notice of Schedule for Environmental Review. If a Notice of Schedule for Environmental Review is issued, it will indicate, among other milestones, the anticipated date for the Commission staff's issuance of the final environmental impact statement (FEIS) or EA for this proposal. The filing of the EA in the Commission's public record for this proceeding or the issuance of a Notice of Schedule for Environmental Review will serve to notify federal and state agencies of the timing for the completion of all necessary reviews, and the subsequent need to complete all federal authorizations within 90 days of the date of issuance of the Commission staff's FEIS or EA.

There are two ways to become involved in the Commission's review of this project. First, any person wishing to obtain legal status by becoming a party to the proceedings for this project should, on or before the comment date stated below, file with the Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426, a motion to intervene in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 385.214 or 385.211) and the Regulations under the NGA (18 CFR 157.10). A person obtaining party status will be placed on the service list maintained by the Secretary of the Commission and will receive copies of all documents filed by the applicant and by all other parties. A party must submit 7 copies of filings made with the Commission and must mail a copy to the applicant and to every other party in the proceeding. Only parties to the proceeding can ask for court review of Commission orders in the proceeding.

However, a person does not have to intervene in order to have comments considered. The second way to participate is by filing with the Secretary of the Commission, as soon as possible, an original and two copies of comments in support of or in opposition to this project. The Commission will consider these comments in determining the appropriate action to be taken, but the filing of a comment alone will not serve to make the filer a party to the proceeding. The Commission's rules require that persons filing comments in opposition to the project provide copies of their protests only to

the party or parties directly involved in the protest.

Persons who wish to comment only on the environmental review of this project should submit an original and two copies of their comments to the Secretary of the Commission. Environmental commenters will be placed on the Commission's environmental mailing list, will receive copies of the environmental documents, and will be notified of meetings associated with the Commission's environmental review process. Environmental commenters will not be required to serve copies of filed documents on all other parties. However, the non-party commentary, will not receive copies of all documents filed by other parties or issued by the Commission (except for the mailing of environmental documents issued by the Commission) and will not have the right to seek court review of the Commission's final order.

The Commission strongly encourages electronic filings of comments, protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 5 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426. See, 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the "e-Filing" link.

Comment Date: May 4, 2015.

Dated: April 13, 2015.

Kimberly D. Bose,

Secretary.

[FR Doc. 2015-08871 Filed 4-16-15; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP15-148-000]

Tennessee Gas Pipeline Company, L.L.C.; Notice of Application

Take notice that on April 2, 2015, Tennessee Gas Pipeline Company, L.L.C. (Tennessee), 1001 Louisiana Street, Houston, Texas 77002, filed an application pursuant to section 7(c) of the Natural Gas Act (NGA) requesting authorization to construct and operate its Susquehanna West Project (Project) located in Pennsylvania. Tennessee asserts that the proposed Project will increase east-to-west delivery capacity in the region by approximately 145,000 dekatherms per day. Tennessee states

that the Project involves: (i) Approximately 8.1 miles of new 36-inch diameter pipeline looping in Tioga County, Pennsylvania; (ii) pipeline modifications associated with the pipeline loops; (iii) modification to piping at three existing compressor stations, which are Compressor Station 315, Compressor Station 317, and Compressor Station 319; and (iv) increase in horsepower at two of the three existing compressor stations. Tennessee estimates the cost of the Project to be approximately \$156.4 million, all as more fully set forth in the application which is on file with the Commission and open to public inspection. The filing is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's Web site web at <http://www.ferc.gov> using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, contact FERC at FERCOnlineSupport@ferc.gov or call toll-free, (886) 208-3676 or TYY, (202) 502-8659.

Any questions concerning this application may be directed to John E. Griffin, Assistant General Counsel, Tennessee Gas Pipeline Company, L.L.C., 1001 Louisiana Street, Houston, Texas 77002, phone: (713) 420-3624, facsimile: (713) 420-1601, email: John_Griffin2@kindermorgan.com.

Pursuant to section 157.9 of the Commission's rules, 18 CFR 157.9, within 90 days of this Notice, the Commission staff will either: Complete its environmental assessment (EA) and place it into the Commission's public record (eLibrary) for this proceeding; or issue a Notice of Schedule for Environmental Review. If a Notice of Schedule for Environmental Review is issued, it will indicate, among other milestones, the anticipated date for the Commission staff's issuance of the final environmental impact statement (FEIS) or EA for this proposal. The filing of the EA in the Commission's public record for this proceeding or the issuance of a Notice of Schedule for Environmental Review will serve to notify federal and state agencies of the timing for the completion of all necessary reviews, and the subsequent need to complete all federal authorizations within 90 days of the date of issuance of the Commission staff's FEIS or EA.

There are two ways to become involved in the Commission's review of this project. First, any person wishing to obtain legal status by becoming a party to the proceedings for this project should, on or before the comment date stated below file with the Federal

Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426, a motion to intervene in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 385.214 or 385.211) and the Regulations under the NGA (18 CFR 157.10). A person obtaining party status will be placed on the service list maintained by the Secretary of the Commission and will receive copies of all documents filed by the applicant and by all other parties. A party must submit seven copies of filings made in the proceeding with the Commission and must mail a copy to the applicant and to every other party. Only parties to the proceeding can ask for court review of Commission orders in the proceeding.

However, a person does not have to intervene in order to have comments considered. The second way to participate is by filing with the Secretary of the Commission, as soon as possible, an original and two copies of comments in support of or in opposition to this project. The Commission will consider these comments in determining the appropriate action to be taken, but the filing of a comment alone will not serve to make the filer a party to the proceeding. The Commission's rules require that persons filing comments in opposition to the project provide copies of their protests only to the party or parties directly involved in the protest.

Persons who wish to comment only on the environmental review of this project should submit an original and two copies of their comments to the Secretary of the Commission. Environmental commenters will be placed on the Commission's environmental mailing list, will receive copies of the environmental documents, and will be notified of meetings associated with the Commission's environmental review process. Environmental commenters will not be required to serve copies of filed documents on all other parties. However, the non-party commenters will not receive copies of all documents filed by other parties or issued by the Commission (except for the mailing of environmental documents issued by the Commission) and will not have the right to seek court review of the Commission's final order.

The Commission strongly encourages electronic filings of comments, protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and seven copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street

NE., Washington, DC 20426. There is an "eSubscription" link on the Web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s).

Comment Date: May 4, 2015.

Dated: April 13, 2015.

Kimberly D. Bose,
Secretary.

[FR Doc. 2015-08872 Filed 4-16-15; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. ER15-1496-000]

2014 ESA Project Company, LLC; Supplemental Notice That Initial Market-Based Rate Filing Includes Request for Blanket Section 204 Authorization

This is a supplemental notice in the above-referenced proceeding of 2014 ESA Project Company, LLC's application for market-based rate authority, with an accompanying rate tariff, noting that such application includes a request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability.

Any person desiring to intervene or to protest should file with the Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Anyone filing a motion to intervene or protest must serve a copy of that document on the Applicant.

Notice is hereby given that the deadline for filing protests with regard to the applicant's request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability, is May 4, 2015.

The Commission encourages electronic submission of protests and interventions in lieu of paper, using the FERC Online links at <http://www.ferc.gov>. To facilitate electronic service, persons with Internet access who will eFile a document and/or be listed as a contact for an intervenor must create and validate an eRegistration account using the eRegistration link. Select the eFiling link to log on and submit the intervention or protests.

Persons unable to file electronically should submit an original and 5 copies of the intervention or protest to the Federal Energy Regulatory Commission,

888 First Street NE., Washington, DC 20426.

The filings in the above-referenced proceeding are accessible in the Commission's eLibrary system by clicking on the appropriate link in the above list. They are also available for electronic review in the Commission's Public Reference Room in Washington, DC. There is an eSubscription link on the Web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please email FERCOnlineSupport@ferc.gov or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Dated: April 13, 2015.

Kimberly D. Bose,
Secretary.

[FR Doc. 2015-08874 Filed 4-16-15; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. ER15-1494-000]

Convergent Energy and Power LLC; Supplemental Notice That Initial Market-Based Rate Filing Includes Request for Blanket Section 204 Authorization

This is a supplemental notice in the above-referenced proceeding of Convergent Energy and Power LLC's application for market-based rate authority, with an accompanying rate tariff, noting that such application includes a request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability.

Any person desiring to intervene or to protest should file with the Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Anyone filing a motion to intervene or protest must serve a copy of that document on the Applicant.

Notice is hereby given that the deadline for filing protests with regard to the applicant's request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability, is May 4, 2015.

The Commission encourages electronic submission of protests and interventions in lieu of paper, using the FERC Online links at <http://www.ferc.gov>. To facilitate electronic

service, persons with Internet access who will eFile a document and/or be listed as a contact for an intervenor must create and validate an eRegistration account using the eRegistration link. Select the eFiling link to log on and submit the intervention or protests.

Persons unable to file electronically should submit an original and 5 copies of the intervention or protest to the Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426.

The filings in the above-referenced proceeding are accessible in the Commission's eLibrary system by clicking on the appropriate link in the above list. They are also available for electronic review in the Commission's Public Reference Room in Washington, DC. There is an eSubscription link on the Web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please email FERCOnlineSupport@ferc.gov or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Dated: April 13, 2015.

Kimberly D. Bose,
Secretary.

[FR Doc. 2015-08873 Filed 4-16-15; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 13213-003; Project No. 13214-003]

Lock 14 Hydro Partners; Lock 12 Hydro Partners; Notice of Technical Meeting

a. *Project Names and Numbers:* From upstream to downstream order, Heidelberg Hydroelectric Project No. 13213, and Ravenna Hydroelectric Project No. 13214.

b. *Date and Time of Meeting:* April 28, 2015; 10:00 p.m. Eastern Time (11:00 p.m. Central Time).

c. *FERC Contact:* Michael Spencer, michael.spencer@ferc.gov or (202) 502-6093.

d. *Purpose of Meeting:* To discuss the concerns raised in the FWS letter, filed March 31, 2015, about endangered species for the projects listed above.

e. A summary of the meeting will be prepared and filed for the projects' records.

f. All local, state, and federal agencies, Indian tribes, and other interested

parties are invited to participate by phone. Please contact Michael Spencer at michael.spencer@ferc.gov or (202) 502-6093 by close of business Tuesday, November 25, 2014, to R.S.V.P. and to receive specific instructions on how to participate.

Dated: April 13, 2015.

Kimberly D. Bose,
Secretary.

[FR Doc. 2015-08879 Filed 4-16-15; 8:45 am]

BILLING CODE 6717-01-P

ENVIRONMENTAL PROTECTION AGENCY

[EPA-HQ-OPP-2015-0217; FRL-9925-43]

Streptomycin Sulfate; Receipt of Application for Emergency Exemption, Solicitation of Public Comment

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: EPA has received a specific exemption request from the Florida Department of Agriculture and Consumer Services (FDACS) to use the pesticide streptomycin sulfate (CAS No. 3810-74-0) to treat up to 47,656 acres of grapefruit for fresh market to control citrus canker. The FDACS proposes a use of a pesticide which contains the active ingredient, streptomycin sulfate, also used in human and animal treatment as an antibiotic. EPA is soliciting public comment before making the decision whether or not to grant the exemption.

DATES: Comments must be received on or before May 4, 2015.

ADDRESSES: Submit your comments, identified by docket identification (ID) number EPA-HQ-OPP-2015-0217, by one of the following methods:

- *Federal eRulemaking Portal:* <http://www.regulations.gov>. Follow the online instructions for submitting comments. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute.

- *Mail:* OPP Docket, Environmental Protection Agency Docket Center (EPA/DC), (28221T), 1200 Pennsylvania Ave. NW., Washington, DC 20460-0001.

- *Hand Delivery:* To make special arrangements for hand delivery or delivery of boxed information, please follow the instructions at <http://www.epa.gov/dockets/contacts.html>.

Additional instructions on commenting or visiting the docket, along with more information about

dockets generally, is available at <http://www.epa.gov/dockets>.

FOR FURTHER INFORMATION CONTACT: Susan Lewis, Registration Division (7505P), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460-0001; main telephone number: (703) 305-7090; email address: RDfrNotices@epa.gov.

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this action apply to me?

You may be potentially affected by this action if you are an agricultural producer, food manufacturer, or pesticide manufacturer. The following list of North American Industrial Classification System (NAICS) codes is not intended to be exhaustive, but rather provides a guide to help readers determine whether this document applies to them. Potentially affected entities may include:

- Crop production (NAICS code 111).
- Animal production (NAICS code 112).
- Food manufacturing (NAICS code 311).
- Pesticide manufacturing (NAICS code 32532).

B. What should I consider as I prepare my comments for EPA?

1. *Submitting CBI.* Do not submit this information to EPA through www.regulations.gov or email. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD-ROM that you mail to EPA, mark the outside of the disk or CD-ROM as CBI and then identify electronically within the disk or CD-ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

2. *Tips for preparing your comments.* When preparing and submitting your comments, see the commenting tips at <http://www.epa.gov/dockets/comments.html>.

3. *Environmental justice.* EPA seeks to achieve environmental justice, the fair treatment and meaningful involvement of any group, including minority and/or low income populations, in the development, implementation, and enforcement of environmental laws, regulations, and policies. To help

address potential environmental justice issues, the Agency seeks information on any groups or segments of the population who, as a result of their location, cultural practices, or other factors, may have atypical or disproportionately high and adverse human health impacts or environmental effects from exposure to the pesticide discussed in this document, compared to the general population.

II. What action is the agency taking?

Under section 18 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (7 U.S.C. 136p), at the discretion of the EPA Administrator, a Federal or state agency may be exempted from any provision of FIFRA if the EPA Administrator determines that emergency conditions exist which require the exemption. The Florida Department of Agriculture and Consumer Services (FDACS) has requested the EPA Administrator issue a specific exemption for the use of streptomycin sulfate on grapefruit grown for fresh market to control citrus canker (caused by the bacteria *Xanthomonas axonopodis* pv. *Citri* (*Xac*)). Information in accordance with 40 CFR part 166 was submitted as part of this request. Pursuant to 40 CFR 166.24(a)(8), the regulations governing FIFRA section 18 allow for publication of a notice of receipt of an application for an emergency exemption if the Administrator determines that publication is appropriate. The subject emergency exemption application submitted by the FDACS proposes a use of a pesticide which contains the active ingredient, streptomycin sulfate, also used in humans and animals as an antibiotic drug.

As part of this request, the FDACS asserts that citrus canker has spread throughout the citrus growing areas causing significant economic losses. FDACS states that this introduced pathogen has become a serious threat to the viability of the fresh market grapefruit industry in the state of Florida.

The FDACS proposes to make no more than two applications per crop of streptomycin sulfate, at a rate of 0.344 lbs active ingredient per acre (a.i./A), equivalent to 0.6875 lbs formulated product (equivalent to 50% streptomycin) per acre. A maximum total of 0.688 lbs a.i./A (1.375 lbs product/A) could potentially be applied on up to 47,656 acres of grapefruit in June through September of 2015. Use is possible statewide, but would primarily be in the commercial grapefruit producing counties of Polk, Hendry, Highlands, De Soto, Hardee, St. Lucie,

Indian River, Collier, Manatee, and Martin. At maximum rates, applications, and acreage, 32,763 lbs of streptomycin sulfate (65,527 lbs formulated product), could be used under the proposed program.

This notice does not constitute a decision by EPA on the application itself. The regulations governing FIFRA section 18 allows publication of a notice of receipt of an application for a specific exemption proposing use of a pesticide which contains the active ingredient, streptomycin sulfate, also used in humans and animals as an antibiotic drug. This notice provides an opportunity for public comment on the application.

The Agency will review and consider all comments received during the comment period in determining whether to issue the specific exemption requested by the FDACS.

Authority: 7 U.S.C. 136 *et seq.*

Dated: April 9, 2015.

Susan Lewis,

Director, Registration Division, Office of Pesticide Programs.

[FR Doc. 2015-08908 Filed 4-16-15; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

[FRL-9926-39-OEI; EPA-HQ-OEI-2014-0465]

Establishment of a New System of Records Notice for the Superfund Enterprise Management System

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The U.S. Environmental Protection Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), is giving notice that it proposes to create a new system of records pursuant to the provisions of the Privacy Act of 1974 (5 U.S.C. 552(a)). The EPA is implementing the Superfund Enterprise Management System (SEMS) system of records to provide project and program managers the ability to plan, manage, track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement, and Emergency Response programs.

DATES: Persons wishing to comment on this system of records notice must do so by May 27, 2015.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-HQ-OEI-2014-0465, by one of the following methods:

- *www.regulations.gov:* Follow the online instructions for submitting comments.

- *Email:* oei.docket@epa.gov.

- *Fax:* 202-566-1752.

- *Mail:* OEI Docket, Environmental Protection Agency, Mail Code: 2822T, 1200 Pennsylvania Ave. NW., Washington, DC 20460.

- *Hand Delivery:* OEI Docket, EPA/DC, WJC West Building, Room 3334, 1301 Constitution Ave. NW., Washington, DC. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA-HQ-OEI-2014-0465. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information for which disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through www.regulations.gov. The www.regulations.gov Web site is an "anonymous access" system, which means the EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to the EPA without going through www.regulations.gov your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, the EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If the EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, the EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about the EPA's public docket visit the EPA Docket Center homepage at <http://www.epa.gov/epahome/dockets.htm>.

Docket: All documents in the docket are listed in the *www.regulations.gov* index. Although listed in the index, some information is not publicly available, e.g., CBI or other information for which disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in *www.regulations.gov* or in hard copy at the OEI Docket, EPA/DC, WJC West Building, Room 3334, 1301 Constitution Ave. NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the OEI Docket is (202) 566-1752.

FOR FURTHER INFORMATION CONTACT: Steven Wyman, Office of Solid Waste and Emergency Response (OSWER), Office of Superfund Remediation and Technology Information (OSRTT), Mail Code 5202P, 1200 Pennsylvania Ave. NW., Washington, DC 20460; telephone number (703) 603-8882.

SUPPLEMENTARY INFORMATION:

General Information: EPA proposes to create a new system of records under the Privacy Act to integrate the legacy Superfund data collection, reporting and tracking modules into one single system. This single system will transform the Superfund program by improving operational effectiveness, reducing costs, streamlining business processes, and enhancing information management capabilities. The Superfund Enterprise Management System (SEMS) is an electronic repository of Superfund documents routinely used to disseminate records in response to Freedom of Information Act (FOIA) requests, establishment of Administrative Records (ARs), and litigation support. The SEMS database application supports the electronic capture, imaging, indexing and tracking of records which document investigation, cleanup, and enforcement activities at potential and existing hazardous waste sites, as mandated by CERCLA, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986.

The types of information in the system include data and information that support program activities and decisions regarding the cleanup of specific Superfund sites. The system is intended to provide repositories of or access to a variety of programmatic information regarding site management, cost recovery, site financial resources,

enforcement actions, and supporting documentation. The information is collected to ensure that supporting documentation for activities and decisions related to the Superfund site cleanup are well maintained and readily accessible as needed. The program utilizes this information in a variety of ways, including but not limited to research, enforcement, litigation support, responses to congressional and FOIA requests, public participation in the Superfund process, electronic archiving, cost recovery, disaster recovery, and support of the program and Agency missions.

Records protected under the Privacy Act are subject to Agency-wide security requirements governing all database systems at EPA. Privacy is maintained by limiting access to the database containing confidential business and personal information. Access to the database is limited to individuals designated as System Administrators, Remedial Project Managers (RPMs), Data Sponsors, On-Scene Coordinators (OSCs), Information Management Coordinators (IMCs), Budget Coordinators (BCs), Regional Attorneys, Regional Managers, Data Entry Support Staff, Support Contractors, and any other staff with assigned data management responsibilities.

Physical access to the building (EPA's National Computer Center (NCC) at Research Triangle Park, NC) is limited to EPA employees and their contractors with key cards. The building is equipped with cameras and sign-in sheets are utilized to monitor employee activities, traffic flow, and access to the computer room where the file servers and storage networks are located.

Dated: April 8, 2015.

Ann Dunkin,
Chief Information Officer.

EPA-69

SYSTEM NAME:

Superfund Enterprise Management System (SEMS)

SYSTEM LOCATION:

The system is hosted at the National Computer Center (NCC) located at Research Triangle Park (RTP), North Carolina. Address: 109 T.W. Alexander Drive, RTP NC 27711.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

This system covers potentially responsible parties, EPA employees with responsibilities at specific Superfund sites, members of the public who have made public comments on program decisions or who have

environmental sampling results reported for their personal business or residence, and contractor and analytical laboratory staff with responsibilities on specific Superfund sites.

CATEGORIES OF RECORDS COVERED BY THE SYSTEM:

Site location and basic descriptive information; contact information (e.g., name, address, telephone number, email address) for key individuals with responsibilities on specific Superfund sites; data generated by EPA in regards to site information and actions conducted at the site; planned and actual site financial and enforcement information; potentially responsible parties (PRP); negotiation data; litigation/referral data; lien data; alternative dispute resolution data; litigation history; correspondence tracking; community involvement data (i.e., location, contact data, technical assistance grant data); and medical information pertaining to environmental sampling results or public complaints.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

42 U.S.C. Chapter 103; 40 CFR 300

PURPOSE(S):

The purpose of SEMS is to provide project and program managers with data and information needed to plan, manage, track and report on cleanup and enforcement activities taking place at Superfund sites. SEMS is an electronic repository of Superfund documents and data used to disseminate records in response to FOIA and other external requests, and in support of litigation, investigation, cleanup, program planning, and enforcement activities. SEMS tracks activities at each Superfund site which include removal, risk characterization, remedy selection, post construction, enforcement activities, financial resources, and community involvement.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS, AND PURPOSES OF SUCH USES:

General Routine Uses A, E, F, G, H, K and L apply to this system.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

- Storage: Records will be stored electronically in an Agency-approved database (Oracle) and managed by system developers and administrators, along with EPA Office of Superfund Remediation and Technology Information (OSRTI) personnel. Incremental system backups are performed nightly and monthly. Actual files are stored in a Windows file server.

- **Retrievability:** Records can be retrieved by Site Name, Site ID Number, Author, Addressee, Document Title, Document Date, and Document ID Number.

- **Safeguards:** The following safeguards are in place:

(a) Information is maintained in a secure username/password protected environment. Permission-level assignments allow users access only to those functions for which they are authorized. Access to all information and hardware is maintained in a secure, access controlled facility at the NCC.

(b) The system has a single point of access via a front-end Portal. All users are required to complete a new user form (signed by their supervisor) and take online security training before they are provided with access.

(c) All authorized users of the SEMS application are required to take an annual security training identifying the user's role and responsibilities for protecting the Agency's information resources, as well as, consequences for not adhering to the policy.

(d) Audit logs are reviewed on a monthly basis to identify system access outside of normal business hours, anomalous user accounts or server names, or login failures.

(e) No external access to SEMS is provided.

- **Retention and Disposal:** Records stored in this system are subject to record schedule 0755, which is still being finalized.

SYSTEM MANAGER(S) AND ADDRESS:

Steven Wyman, Office of Solid Waste and Emergency Response (OSWER), Office of Superfund Remediation and Technology Information (OSRTI), Mail Code 5202P, 1200 Pennsylvania Ave. NW., Washington, DC 20460; telephone number 703-603-8882.

NOTIFICATION PROCEDURE:

Any individual who wants to know whether this system of records contains a record about him or her, who wants access to his or her record, or who wants to contest the contents of a record, should make a written request to the EPA FOIA Office, Attn: Privacy Act Officer, MC 2822D, 1200 Pennsylvania Avenue NW., Washington, DC 20460.

RECORD ACCESS PROCEDURE:

Request for access must be made in accordance with the procedures described in EPA's Privacy Act regulations at 40 CFR part 16. Requesters will be required to provide adequate identification, such as driver's license, employee identification card, or other identifying document. Additional

identification procedures may be required in some instances.

CONTESTING RECORD PROCEDURE:

Requests for correction or amendment must identify the record to be changed and the corrective action sought.

Complete EPA Privacy Act procedures are described in EPA's Privacy Act regulations at 40 CFR part 16.

RECORD SOURCE CATEGORIES:

Information captured in SEMS is derived from existing programmatic records, EPA employees, contractors, civil investigators and attorneys, analytical laboratories, the public and State cleanup programs.

SYSTEM EXEMPTED FROM CERTAIN PROVISIONS OF THE ACT:

None.

[FR Doc. 2015-08926 Filed 4-16-15; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

[FRL-9926-25-Region 5]

Notice of Issuance of a Federal Operating Permit for G&K Services Inc.—Green Bay

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: This notice announces that on March 23, 2015, pursuant to title V of the Clean Air Act, the Environmental Protection Agency (EPA) issued a Federal operating permit to G&K Services, Inc., for G&K Services, Inc.—Green Bay. The permit authorizes the operation of industrial washers, industrial dryers, a natural gas-fired boiler, a steam tunnel, and other processes used to clean and recondition soiled industrial towels.

ADDRESSES: The final signed permit is available for public inspection online at <http://yosemite.epa.gov/r5/r5ard.nsf/Tribal+Permits!OpenView>, or during normal business hours at the following address: U.S. Environmental Protection Agency, Region 5, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. We recommend that you call Michael Langman, Environmental Scientist, at (312) 886-6867 before visiting the Region 5 office.

FOR FURTHER INFORMATION CONTACT: Michael Langman, Environmental Scientist, Air Permits Section, Air Programs Branch (AR-18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 886-6867, langman.michael@epa.gov.

SUPPLEMENTARY INFORMATION:

Throughout this document whenever “we,” “us,” or “our” is used, we mean EPA.

A. What is the background information?

G&K Services, Inc. owns and operates G&K Services, Inc.—Green Bay, which is located within the exterior boundaries of the Oneida Tribe of Indians of Wisconsin's tribal reservation in Green Bay, Wisconsin. Emission units at the source consist of nine industrial washers, six natural gas-fired industrial dryers, a natural gas-fired boiler, a natural gas-fired steam tunnel, and other processes. These emission units and other processes are used to process, clean, and recondition soiled industrial towels.

On February 13, 2013, G&K Services, Inc. contacted EPA Region 5 to discuss the permitting status of G&K Services, Inc.—Green Bay, since a question had arisen regarding the identity of the proper permitting authority. Prior to the issuance of this permit, G&K Services, Inc.—Green Bay operated according to the requirements of an operating permit issued by the Wisconsin Department of Natural Resources (WDNR). However, on December 4, 2001, EPA granted full approval of Wisconsin's title V operating permit program (*see* 66 FR 62951). In its action, EPA specifically exempted Indian country from the approval of Wisconsin's title V operating permit program (*id.* at 62953). Since the source is located within the exterior boundaries of the Oneida Tribe of Indians of Wisconsin's tribal reservation and EPA did not grant WDNR the authority to issue title V operating permits to sources located in Indian country, EPA determined that we are the permitting authority for this source.

On June 14, 2013, G&K Services, Inc. submitted an application for an initial operating permit pursuant to the requirements of the Federal operating permit program codified at 40 CFR part 71. On July 17, 2013, G&K Services, Inc. submitted additional information to supplement its permit application. On July 25, 2013, EPA determined that the application was complete pursuant to 40 CFR 71.5(a)(2).

On December 5, 2014, EPA issued a draft permit for a 30-day public comment period pursuant to 40 CFR 71.11(d). The public comment period ended on January 5, 2015. During the public comment period, EPA received comments from G&K Services, Inc. requesting clarification of permit terms. EPA responded to all comments as required by 40 CFR 71.11(j).

EPA issued the final permit for G&K Services, Inc.—Green Bay, permit number V–ON–5500900021–2014–01, on March 23, 2015. Pursuant to 40 CFR 71.11(i)(2), the final permit becomes effective on April 22, 2015, unless review is requested pursuant to 40 CFR 71.11(i)(1).

B. Appeal of the Permit

Pursuant to 40 CFR 71.11(l), any person who filed comments on the draft permit may petition the Environmental Appeals Board for administrative review of any condition of the permit decision. Any person who failed to file comments may petition for administrative review of the permit only on changes from the draft to the final permit or to the extent that new grounds for a petition have arisen that were not reasonably foreseeable during the public comment period on the draft permit. The 30-day period during which a person may seek review under 40 CFR 71.11(l) began on March 25, 2015, the date on which EPA notified G&K Services, Inc. of issuance of the permit.

C. What is the purpose of this notice?

EPA is notifying the public of the issuance of a title V operating permit, permit number V–ON–5500900021–2014–01, issued on March 23, 2015, to G&K Services, Inc. for its source in Green Bay, Wisconsin. The permit becomes effective on April 22, 2015, unless review is requested pursuant to 40 CFR 71.11(i)(1).

Authority: 42 U.S.C. 7401 *et seq.*

Dated: April 1, 2015.

Susan Hedman,

Regional Administrator, Region 5.

[FR Doc. 2015–08910 Filed 4–16–15; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL–9925–75–Region 2]

New York State Prohibition of Discharges of Vessel Sewage; Proposed Determination

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of proposed determination.

SUMMARY: By petition dated May 19, 2014 and submitted pursuant to 33 CFR 1322(f)(3) and 40 CFR 140.4(a), the State of New York certified that the protection and enhancement of the waters of Seneca Lake, Cayuga Lake, the Seneca River and tributaries thereto requires greater environmental protection than

the applicable Federal standards provide and petitioned the Environmental Protection Agency (EPA), Region 2, for a determination that adequate facilities for the safe and sanitary removal and treatment of sewage from all vessels are reasonably available for those waters, so that the State may completely prohibit the discharge from all vessels of any sewage, whether treated or not, into such waters. Upon consideration of the petition, EPA proposes to make the requested determination and hereby invites the public to comment on the proposed determination.

DATES: Comments relevant to this proposed determination are due by May 18, 2015.

ADDRESSES: You may submit comments by any of the following methods:

- *Email:* chang.moses@epa.gov.

Include “Comments on Proposed Determination on Seneca Lake/Cayuga Lake NDZ Petition” in the subject line of the message.

- *Mail and Hand Delivery/Courier:* Moses Chang, U.S. EPA Region 2, 290 Broadway, 24th Floor, New York, NY 10007–1866. Deliveries are only accepted during the Regional Office’s normal hours of operation (8 a.m. to 5 p.m., Monday through Friday, excluding federal holidays), and special arrangements should be made for deliveries of boxed information.

FOR FURTHER INFORMATION CONTACT:

Moses Chang, (212) 637–3867, email address: chang.moses@epa.gov.

SUPPLEMENTARY INFORMATION:

Petition: To receive a copy of the petition, please contact Moses Chang at (212) 637–3867 or email at chang.moses@epa.gov.

The Proposed No Discharge Zone

New York proposes to establish a vessel waste No Discharge Zone (NDZ) covering the approximately 150 square miles of connected waters and tributaries of Seneca Lake, Cayuga Lake and the Seneca River.

Certification of Need

New York’s petition contains a certification by the Commissioner of the New York State Department of Environmental Conservation (NYSDEC) that the protection and enhancement of Seneca Lake, Cayuga Lake, the Seneca River and the navigable tributaries thereto, requires greater environmental protection than the applicable Federal standards provide. The certification states that Cayuga Lake and Seneca Lake are water bodies of unique ecological, economic and public health significance, as well as drinking water

sources. Pathogens and chemicals contained in the currently-lawful effluent from discharging marine sanitation devices (MSDs) threaten public health and the environment and contravene the State’s ongoing efforts to control point and non-point source pollution from municipal discharges, combined sewer overflows and stormwater runoff. A NDZ designation covering the waters of each lake represents one component of a comprehensive approach to water quality management. Protecting Cayuga Lake and Seneca Lake warrants this greater level of environmental protection in order to maintain excellent water quality, prevent future degradation and speed the recovery of impaired segments. Seneca Lake is the largest and deepest of all the Finger Lakes at 4.2 trillion gallons in volume and 291 feet in average depth. The maximum depth of the lake is 618 feet. The Seneca Lake Watershed comprises 14% of the greater Oswego River Watershed. While the water quality of the lake is generally good, the lake is on the NYSDEC Priority Waterbody List (PWL) as a *Water with Minor Impacts*. This means that the current uses of the lake are fully supported but some negative water quality impacts have been observed and action must be taken to ensure that the water will continue to support its uses in the future. Pollutants that negatively impact the lake include pathogens and oxygen demand from the Watkins Glen wastewater treatment plant and general lakeside activities as well as sediment from eroding stream banks and steep slopes surrounding the lake. As part of its broader efforts to protect and enhance the water quality of Seneca Lake, New York seeks to eliminate the discharge of pathogens and chemicals from all vessels using the lake.

Cayuga Lake has a maximum depth of 435 feet and a volume of about 2.5 trillion gallons. The Cayuga Lake Watershed comprises 15% of the greater Oswego River Watershed. While the water quality of Cayuga Lake is generally good, the northern to mid-south portions of the lake are on the NYSDEC Priority Waterbody List (PWL) as *Threatened Segments* because of the lake’s significant value as a drinking water resource. As part of its broader effort to preserve and enhance water quality to maintain the lake’s use as drinking waters with minimal required treatment, New York seeks to eliminate the discharge of pathogens and chemicals from all vessels using the lake.

Adequacy of Sewage Removal and Treatment Facilities

In determining whether adequate facilities exist for the safe and sanitary removal and treatment of sewage from all vessels using a water body, EPA relies on the "Clean Vessel Act: Pumpout Station and Dump Station Technical Guidelines," (59 FR 11290, March 10, 1994) published by the Department of the Interior (DOI), which provides that at least one pumpout station should be provided for every 300 to 600 boats over 16 feet in length. The guidance also provides that approximately 20% of boats between 16 and 26 feet, 50% of boats between 26 and 40 feet and all vessels over 40 feet in length can be assumed to have an installed toilet with some type of MSD. Vessels below 16 feet in length are generally presumed not to have an MSD onboard.

Estimated Vessel Population

In support of its petition, New York provided information on the vessel population in the proposed NDZ. The population of recreational vessels using Seneca Lake, Cayuga Lake and the Seneca River was estimated based on the New York State Office of Parks, Recreation and Historic Preservation's 2012 Boating Report (OPRHP Report) for the counties of Cayuga, Ontario, Schuyler, Seneca, Stueben, Tompkins and Yates, which surround the lakes. While it is very unlikely that every single vessel registered in these counties will operate in the proposed NDZ simultaneously, the state took a conservative approach and considered all boats registered in these counties as

part of the overall recreational vessel population of the proposed NDZ. According to the OPRHP Report, in the seven counties surrounding the proposed NDZ, there are 16,740 registered boats between 16 and 25 feet long, 1161 boats between 26 and 40 feet long and 71 boats over 40 feet long. Applying the percentages in the DOI guidance yields an estimate of 3,967 recreational vessels with MSDs that operate in the proposed NDZ.

The population of commercial vessels using Seneca Lake, Cayuga Lake and the Seneca River was estimated based on information provided by the Genesee Finger Lakes Regional Planning Board and the Finger Lakes Institute as well as information obtained from the Internet.

According to these sources, the majority of commercial vessels operating in the proposed NDZ are chartered fishing boats. There are at least 18 charter services that operate primarily in Seneca Lake and Cayuga Lake, as well as 11 cruise companies. These companies own anywhere from one to three vessels. A conservative assumption of 40 companies (18 charter companies + 11 cruise companies + 11 unlisted business) with 3 vessels each yields a total of 120 commercial vessels that operate in the proposed NDZ. As an additional conservative assumption, all 120 commercial vessels are assumed to have MSDs. Therefore, there are approximately 4,090 vessels with MSDs operating in the proposed NDZ.

Available Pumpout Facilities

In further support of its petition, New York provided information on the number of pumpout facilities available to the recreational and commercial

vessels in the proposed NDZ. The federal Clean Vessel Act of 1992 made grants available to states for construction, replacement and renovation of recreational vessel pumpouts. New York applied for the first federal grant in 1994 and initiated a statewide program known as the Clean Vessel Assistance Program (CVAP), managed and administered by New York State Environmental Facilities Corporation (EFC) that has helped establish and support 17 pumpout facilities serving Seneca Lake and Cayuga Lake, of which two are pumpout boats and 15 are dockside pumpouts. EPA independently updated and verified these pumpout information and concluded that two pumpout boats are out of operation and only 14 dockside pumpouts are operational. An additional 3 pumpout facilities are available to the public but are not funded through CVAP. All these current 17 pumpout (14 CVAP + 3 non-CVAP pumpouts = 17 pumpouts) facilities either discharge to a holding tank, to a municipal wastewater treatment plant or to an on-site septic system.

While some commercial shipping vessels are so large as to require special docking accommodations or mobile pumpouts to access pumpout services, the commercial vessels that operate in the proposed NDZ are all small enough to use the same pumpouts that the recreational vessels use. Therefore, the total number of pumpout facilities available for use by the vessels that operate in the proposed NDZ is 17. A list of pumpout facilities, phone numbers, locations, hours of operation, water depth and fees is provided below:

PUMPOUT FACILITIES

#	Name	Location Lat./Long.	Contact information	*Days and hours of operation	Water depth (feet)	Fee
1	Cayuga-Seneca—Lock CS1-4.	Seneca Lake State Park, 42.870575/-76.939667.	315-789-2331	April 1–September 30, 24 hours.	6	\$2.00
2	Cayuga Lake	Allan H Treman. State Marine Park, 42.458467/-76.513033.	607-273-3440	May 1–October 15, 24 hours.	7	2.00
3	Cayuga Lake	Frontenac Harbor, 42.839778/-76.695769.	315-889-5532	April 1–October 15, 9:00 a.m.–4:30 p.m..	4	5.00
4	Seneca Lake	Barret Marine, Inc.—Stationary, 42.874176/-76.935906.	315-789-9513	Year round, 8:00 a.m.–7:00 p.m..	5	0.00
5	Seneca Lake	Village Marina, 42.384630/-76.87871697.	607-535-7910	June –October, 11:00 a.m.–6:00 p.m..	5	5.00
6	Seneca Lake	Stivers (GPJ) Seneca Marine, Inc., 42.868925/-76.939064.	315-789-5520	May 1—Labor Day, 8:00 a.m.–8:00 p.m..	6	5.00
7	Cayuga Lake	Johnson Boat Yard (dba)—Pierce Cleveland, Inc., 42.452369/-76.510231.	607-272-5191	April 1–November 1, 9:00 a.m.–5:00 p.m..	6	0.00
8	Seneca Lake	Montour Falls-V Municipal Marina, 42.354167/-76.853333.	607-210-4124	May 2–October 15, 7:00 a.m.–7:00 p.m..	4.5	5.00
9	Cayuga Seneca—Lock CS1-4.	Oak Island Marine Facility, 42.900983/-76.866894.	315-539-9131	April 1–October 1, 24 hours.	8	0.00
10	Cayuga Lake	Hibiscus Harbor, 42.856781/-76.706081.	315-889-5086	April 1–November 1, 24 hours.	12	5.00

PUMPOUT FACILITIES—Continued

#	Name	Location Lat./Long.	Contact information	*Days and hours of operation	Water depth (feet)	Fee
11	Seneca Lake	Frog Hollow Marina, 42.370636/-76.859106.	607-535-2671	April 15–November 15, 9:00 a.m.–5:00 p.m..	5	5.00
12	Seneca Lake	Seneca Falls-V, 42.909675/-76.795868.	315-568-2316	May 1–November 1, 24 hours.	20	2.00
13	Cayuga-Seneca—Lock CS1-4.	Waterloo Harbor, 42.540172/-76.524237.	315-539-8848	May 1–September 30, 24 hours.	10	5.00
14	Seneca Lake	Glen Harbor Marina, 42.383099/-76.861575.	607-535-2751	April 15–October 15, 10:00 a.m.–5:00 p.m..	6	0.00
15	Cayuga Lake	Eagles Landing Marina, 42.072211/-76.548915.	315-834-6829	April 15–October 15	Unknown	0.00
16	Cayuga Lake	Taughannock Falls State Park, 42.547636/-76.595714.	607-387-6739	March 1–October 15	6	0.00
17	Seneca Lake	Sampson State Park Marina, 42.4247/-76.9119.	315-585-6392	April 15–October 20	Unknown	0.00

* Please note that the actual days of operation depend on the weather.

RATIO OF PUMPOUTS FACILITIES TO VESSELS OPERATING IN THE PROPOSED NDZ

Total boat registrations	Total pumpout facilities	Boat: pumpout ratio
4,090	17	241:1

Based on a total vessel population of 4,090 and 17 currently available pumpout facilities, the ratio of boats to pumpouts is 241:1, which means there are significantly more pumpouts than the recommended range of 300–600:1. Also, the pumpouts are evenly distributed between the lakes (7 in Cayuga Lake and 10 in Seneca Lake). Therefore, EPA proposes to issue a determination that adequate pumpout facilities for the safe and sanitary removal and treatment of sewage for all vessels are reasonably available for the waters of Seneca Lake, Cayuga Lake and the Seneca River.

A 30-day period for public comment has been opened on this matter and EPA invites any comments relevant to its proposed determination. If, after the public comment period ends, EPA makes a final determination that adequate facilities for the safe and sanitary removal and treatment of sewage from all vessels are reasonably available for the waters of Seneca Lake, Cayuga Lake and the Seneca River, the State may completely prohibit the discharge from all vessels of any sewage, whether treated or not, into such waters.

Judith A. Enck,

Regional Administrator, Region 2.

[FR Doc. 2015-08807 Filed 4-16-15; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

[ER-FRL-9020-5]

Environmental Impact Statements; Notice of Availability

Responsible Agency: Office of Federal Activities, General Information (202) 564-7146 or <http://www.epa.gov/compliance/nepa/>.

Weekly receipt of Environmental Impact Statements.

Filed 04/06/2015 Through 04/10/2015.

Pursuant to 40 CFR 1506.9.

Notice

Section 309(a) of the Clean Air Act requires that EPA make public its comments on EISs issued by other Federal agencies. EPA's comment letters on EISs are available at: <http://www.epa.gov/compliance/nepa/eisdata.html>.

EIS No. 20150103, Final EIS, DOI, UT, Provo River Delta Restoration Project, review period ends: 05/18/2015, Contact: W. Russ Findlay 801-379-1084.

EIS No. 20150104, Final EIS, NPS, CA, Channel Islands National Park Final General Management Plan and Wilderness Study, review period ends: 05/18/2015, Contact: Greg Jarvis 303-969-2263.

EIS No. 20150105, Final EIS, USFS, MT, Greater Red Lodge Vegetation and Habitat Management Project, review period ends: 05/18/2015, Contact: Amy Waring 406-255-1451.

EIS No. 20150106, Draft EIS, FERC, LA, Lake Charles Liquefaction Project, comment period ends: 06/01/2015, Contact: Shannon Crosley 202-502-8853.

Amended Notices

WITHDRAWN—EIS No. 20140277, Final EIS, USFS, MT, Greater Red Lodge Vegetation and Habitat Management Project, Contact: Amy Waring 406-255-1451.

Revision to the FR Notice Published 09/24/2014; This document was Officially Withdrawn by the preparing agency.

Dated: April 14, 2015.

Cliff Rader,

Director, NEPA Compliance Division, Office of Federal Activities.

[FR Doc. 2015-08924 Filed 4-16-15; 8:45 am]

BILLING CODE 6560-50-P

FEDERAL DEPOSIT INSURANCE CORPORATION

Sunshine Act Meeting

Pursuant to the provisions of the "Government in the Sunshine Act" (5 U.S.C. 552b), notice is hereby given that the Federal Deposit Insurance Corporation's Board of Directors will meet in open session at 10:00 a.m. on Tuesday, April 21, 2015, to consider the following matters:

Summary Agenda: No substantive discussion of the following items is anticipated. These matters will be resolved with a single vote unless a member of the Board of Directors requests that an item be moved to the discussion agenda.

Disposition of minutes of previous Board of Directors' Meetings.

Memorandum and resolution re: Proposed FDIC Strategic Plan, 2015–2019.

Memorandum and resolution re: Final Rule to Revise 12 CFR part 340 "Restrictions on Sale of Assets by the FDIC".

Memorandum and resolution re: Final Rule: Minimum Requirements for Appraisal Management Companies.

Summary reports, status reports, reports of the Office of Inspector General, and reports of actions taken pursuant to authority delegated by the Board of Directors.

Discussion Agenda:

Memorandum and resolution re: Advance Notice of Proposed Rulemaking on Large Bank Deposit Insurance Determination Modernization.

Briefing: Update of Projected Deposit Insurance Fund Losses, Income, and Reserve Ratios for the Restoration Plan.

The meeting will be held in the Board Room located on the sixth floor of the FDIC Building located at 550 17th Street NW., Washington, DC.

This Board meeting will be Webcast live via the Internet and subsequently made available on-demand approximately one week after the event. Visit <https://fdic.primetime.mediaplatform.com/#!/channel/1232003497484/Board+Meetings> to view the event. If you need any technical assistance, please visit our Video Help page at: <http://www.fdic.gov/video.html>.

The FDIC will provide attendees with auxiliary aids (e.g., sign language interpretation) required for this meeting. Those attendees needing such assistance should call 703-562-2404 (Voice) or 703-649-4354 (Video Phone) to make necessary arrangements.

Requests for further information concerning the meeting may be directed to Mr. Robert E. Feldman, Executive Secretary of the Corporation, at 202-898-7043.

Dated: April 14, 2015.

Federal Deposit Insurance Corporation.

Robert E. Feldman,

Executive Secretary.

[FR Doc. 2015-08986 Filed 4-15-15; 4:15 pm]

BILLING CODE 6714-01-P

FEDERAL DEPOSIT INSURANCE CORPORATION

Notice to All Interested Parties of the Termination of the Receivership of 10173 Premier American Bank, Miami, Florida

Notice is hereby given that the Federal Deposit Insurance Corporation ("FDIC") as Receiver for Premier American Bank, Miami, Florida ("the Receiver") intends to terminate its receivership for said institution. The FDIC was appointed receiver of Premier American Bank on January 22, 2010. The liquidation of the receivership assets has been completed.

To the extent permitted by available funds and in accordance with law, the Receiver will be making a final dividend payment to proven creditors.

Based upon the foregoing, the Receiver has determined that the continued existence of the receivership will serve no useful purpose. Consequently, notice is given that the receivership shall be terminated, to be effective no sooner than thirty days after the date of this Notice. If any person wishes to comment concerning the termination of the receivership, such comment must be made in writing and sent within thirty days of the date of this Notice to: Federal Deposit Insurance Corporation, Division of Resolutions and Receiverships, Attention: Receivership Oversight Department 32.1, 1601 Bryan Street, Dallas, TX 75201.

No comments concerning the termination of this receivership will be considered which are not sent within this time frame.

Dated: April 13, 2015.

Federal Deposit Insurance Corporation.

Robert E. Feldman,

Executive Secretary.

[FR Doc. 2015-08790 Filed 4-16-15; 8:45 am]

BILLING CODE 6714-01-P

FEDERAL RESERVE SYSTEM

Change in Bank Control Notices; Acquisitions of Shares of a Bank or Bank Holding Company

The notificants listed below have applied under the Change in Bank Control Act (12 U.S.C. 1817(j)) and section 225.41 of the Board's Regulation Y (12 CFR 225.41) to acquire shares of a bank or bank holding company. The factors that are considered in acting on the notices are set forth in paragraph 7 of the Act (12 U.S.C. 1817(j)(7)).

The notices are available for immediate inspection at the Federal Reserve Bank indicated. The notices also will be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing to the Reserve Bank indicated for that notice or to the offices of the Board of Governors. Comments must be received not later than May 4, 2015.

A. Federal Reserve Bank of Atlanta (Chapelle Davis, Assistant Vice President) 1000 Peachtree Street NE., Atlanta, Georgia 30309:

1. *Meredith R. Willson, individually and as co-trustee of the Hugh M. Willson S Corp Family Trust and the Hugh M. Willson S Corp Marital Trust,*

all of Athens, Tennessee, to retain voting shares of Citizens National Bancorp, Inc., and thereby indirectly retain voting shares of Citizens National Bank, both in Athens, Tennessee; and by the Hugh M. Willson S Corp Family Trust, and the Hugh M. Willson S Corp Marital Trust (Meredith R. Willson and Paul G. Willson, co-trustees of both) and Debra M. Willson; all of Athens, Tennessee, to join the previously approved Willson Family control group.

B. Federal Reserve Bank of Kansas City (Dennis Denney, Assistant Vice President) 1 Memorial Drive, Kansas City, Missouri 64198-0001:

1. *Ronald L. Mordy and Margaret S. Mordy, as trustees of the Ronald L. Mordy and Margaret S. Mordy Revocable Living Trust, Dated 8-20-02,* all of Independence, Kansas; to acquire voting shares of 1889 Bancshares, Inc., and thereby indirectly acquire voting shares of The First National Bank of Nevada, both in Nevada, Missouri. In addition, Joseph W. Swearingen, as a member of the Swearingen/Mordy family group, has applied to retain voting shares of 1889 Bancshares, Inc., and thereby indirectly acquire voting shares of The First National Bank of Nevada, both in Nevada, Missouri.

Board of Governors of the Federal Reserve System, April 14, 2015.

Michael J. Lewandowski,

Associate Secretary of the Board.

[FR Doc. 2015-08859 Filed 4-16-15; 8:45 am]

BILLING CODE 6210-01-P

FEDERAL RESERVE SYSTEM

Formations of, Acquisitions by, and Mergers of Bank Holding Companies

The companies listed in this notice have applied to the Board for approval, pursuant to the Bank Holding Company Act of 1956 (12 U.S.C. 1841 *et seq.*) (BHC Act), Regulation Y (12 CFR part 225), and all other applicable statutes and regulations to become a bank holding company and/or to acquire the assets or the ownership of, control of, or the power to vote shares of a bank or bank holding company and all of the banks and nonbanking companies owned by the bank holding company, including the companies listed below.

The applications listed below, as well as other related filings required by the Board, are available for immediate inspection at the Federal Reserve Bank indicated. The applications will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the standards enumerated in the BHC Act (12 U.S.C. 1842(c)). If the

proposal also involves the acquisition of a nonbanking company, the review also includes whether the acquisition of the nonbanking company complies with the standards in section 4 of the BHC Act (12 U.S.C. 1843). Unless otherwise noted, nonbanking activities will be conducted throughout the United States.

Unless otherwise noted, comments regarding each of these applications must be received at the Reserve Bank indicated or the offices of the Board of Governors not later than May 14, 2015.

A. Federal Reserve Bank of San Francisco (Gerald C. Tsai, Director, Applications and Enforcement) 101 Market Street, San Francisco, California 94105-1579:

1. *Western Alliance Bancorporation*, Phoenix, Arizona; to merge with Bridge Capital Holdings, and thereby indirectly acquire its subsidiary bank, Bridge Bank, National Association, both in San Jose, California.

Board of Governors of the Federal Reserve System, April 14, 2015.

Michael J. Lewandowski,

Associate Secretary of the Board.

[FR Doc. 2015-08860 Filed 4-16-15; 8:45 am]

BILLING CODE 6210-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

[CMS-3305-FN]

Medicare and Medicaid Programs; Continued Approval of the American Association for Accreditation of Ambulatory Surgery Facilities' Accreditation Program for Organizations That Provide Outpatient Physical Therapy and Speech Language Pathology Services

AGENCY: Centers for Medicare & Medicaid Services, HHS.

ACTION: Final notice.

SUMMARY: This final notice announces our decision to approve the American Association for Accreditation of Ambulatory Surgery Facilities for continued recognition as a national accrediting organization for organizations that provide outpatient physical therapy and speech language pathology (OPT) services that wish to participate in the Medicare or Medicaid programs. An OPT that participates in Medicaid must also meet the Medicare Conditions of Participation.

DATES: This final notice is effective April 22, 2015 through April 22, 2019.

FOR FURTHER INFORMATION CONTACT: Cindy Melanson, (410) 786-0310, or Patricia Chmielewski, (410) 786-6899.

SUPPLEMENTARY INFORMATION:

I. Background

A healthcare provider may enter into an agreement with Medicare to participate in the program as an outpatient physical therapy and speech language pathology (OPT) provided certain requirements are met. Section 1861(p)(4) of the Social Security Act (the Act), establish distinct criteria for facilities seeking designation as an OPT. Regulations concerning Medicare provider agreements are at 42 CFR part 489 and those pertaining to the survey and certification for Medicare participation of providers and certain types of suppliers are at 42 CFR part 488. The regulations at 42 CFR part 485, subpart H specify the specific conditions that a provider must meet to participate in the Medicare program as an OPT.

Generally, to enter into a Medicare provider agreement, a facility must first be certified by a State Survey Agency as complying with the conditions or requirements set forth in part 485, subpart H of our Medicare regulations. Thereafter, the OPT is subject to periodic surveys by a State Survey Agency to determine whether it continues to meet these conditions. However, there is an alternative to certification surveys by state agencies. Accreditation by a national Medicare accreditation program approved by the Center for Medicare & Medicaid Services (CMS) may substitute for both initial and ongoing state agency review.

Section 1865(a)(1) of the Act provides that, if the Secretary of the Department of Health and Human Services (the Secretary) finds that accreditation of a provider entity by an approved national accreditation organization meets or exceeds all applicable Medicare conditions or requirements, we may "deem" the provider entity to be in compliance. Accreditation by an accrediting organization is voluntary and is not required for Medicare participation.

Part 488, subpart A, implements the provisions of section 1865 of the Act and requires that a national accrediting organization applying for approval of its Medicare accreditation program must provide CMS with reasonable assurance that its accredited provider entities meet requirements that are at least as stringent as the Medicare conditions. Our regulations concerning the approval of accrediting organizations are set forth at §§ 488.4 and 488.8(d)(3). The regulations at § 488.8(d)(3) require an

accrediting organization to reapply for continued approval of its Medicare accreditation program every 6 years or sooner as determined by the CMS. The American Association for Accreditation of Ambulatory Surgery Facilities (AAAASF's) current term of approval as a Medicare accreditation program for OPTs expires April 22, 2015.

II. Application Approval Process

Section 1865(a)(3)(A) of the Act provides us 210 days after the date of receipt of a complete application, with any documentation necessary to make the determination, to complete our survey activities and application process. Within 60 days of receipt of an organization's complete application, we must publish a notice that identifies the national accrediting body making the request, describes the nature of the request, and provide at least a 30-day public comment period. At the end of the 210-day period, we must publish a notice announcing our approval or denial of an application.

III. Provisions of the Proposed Notice

On November 21, 2014, we published a proposed notice in the **Federal Register** (79 FR 69481) entitled "Application from the American Association for Accreditation of Ambulatory Surgery Facilities for Continued Approval of its Accreditation Program for Organizations that Provide Outpatient Physical Therapy and Speech Language Pathology Services" announcing AAAASF's request for continued approval of its Medicare OPT accreditation program. In that notice, we detailed our evaluation criteria. Under section 1865(a)(2) of the Act and in our regulations at § 488.4 and § 488.8, we conducted a review of AAAASF's Medicare OPT accreditation application in accordance with the criteria specified by our regulations, which include, but are not limited to the following:

- An onsite administrative review of AAAASF's: (1) Corporate policies; (2) financial and human resources available to accomplish the proposed surveys; (3) procedures for training, monitoring, and evaluation of its OPT surveyors; (4) ability to investigate and respond appropriately to complaints against accredited OPTs; and (5) survey review and decision-making process for accreditation.

- The comparison of AAAASF's Medicare accreditation program standards to our current Medicare OPT Conditions of Participation (CoPs).

- A documentation review of AAAASF's survey process to:
 - ++ Determine the composition of the survey team, surveyor qualifications,

and AAAASF's ability to provide continuing surveyor training.

++ Compare AAAASF's processes to those we require of State Survey Agencies, including periodic resurvey and the ability to investigate and respond appropriately to complaints against accredited OPTs.

++ Evaluate AAAASF's procedures for monitoring OPTs it has found to be out of compliance with AAAASF's program requirements. (This pertains only to monitoring procedures when AAAASF identifies non-compliance. If noncompliance is identified by a State Survey Agency through a validation survey, the State Survey Agency monitors corrections as specified at § 488.7(d).

++ Assess AAAASF's ability to report deficiencies to the surveyed OPT and respond to the OPT's plan of correction in a timely manner.

++ Establish AAAASF's ability to provide CMS with electronic data and reports necessary for effective validation and assessment of the organization's survey process.

++ Determine the adequacy of AAAASF's staff and other resources.

++ Confirm AAAASF's ability to provide adequate funding for performing required surveys.

++ Confirm AAAASF's policies with respect to surveys being unannounced.

++ Obtain AAAASF's agreement to provide CMS with a copy of the most current accreditation survey together with any other information related to the survey as we may require, including corrective action plans.

In accordance with section 1865(a)(3)(A) of the Act, the November 21, 2014 proposed notice also solicited public comments regarding whether AAAASF's requirements met or exceeded the Medicare CoPs for OPTs. We received no public comments in response to our proposed notice.

IV. Provisions of the Final Notice

A. Differences Between AAAASF's Standards and Requirements for Accreditation and Medicare Conditions and Survey Requirements

We compared AAAASF's OPT accreditation requirements and survey process with the Medicare CoPs of part 485, subpart H and the survey and certification process requirements of parts 488 and 489. Our review and evaluation of AAAASF's OPT application, which were conducted as

described in section III of this final notice, yielded the following areas where, as of the date of this notice, AAAASF has completed revising its standards and certification processes in order to meet the requirements at:

- Section 488.4(a)(3)(ii), to ensure surveyors are provided the necessary tools to evaluate compliance with the Medicare conditions.

- Section 488.4(a)(3)(iii), to ensure the accreditation review process and accreditation decision making process meets the Medicare requirements, the following was modified:

++ Policy related to how AAAASF verifies an organization without a CMS certification number (CCN) seeking an initial survey has completed the Medicare enrollment application prior to receiving an accreditation survey;

++ Policy for establishing an effective date for renewal surveys;

++ Policy for withdrawals and terminations; and

++ Guidance and instructions on how plans of correction are handled when they are not adequate.

- Section 488.4(a)(6), to address the requirement where complaints that do not rise to the level of requiring an onsite investigation are tracked and trended for potential focus areas during the next onsite survey.

- Section 488.9, to address the number of medical records reviews that must be completed onsite.

- Section 488.26(b), to ensure survey reports contain the appropriate level of deficiency (that is, standard versus condition).

- Section 488.28(a), to ensure plans of correction correct the cited deficiencies, include thresholds of compliance and are sent timely.

B. Term of Approval

Based on our review and observations described in section III of this final notice, we approve AAAASF as a national accreditation organization for OPTs that request participation in the Medicare program, effective April 22, 2015 through April 22, 2019.

V. Collection of Information Requirements

This document does not impose information collection requirements, that is, reporting, recordkeeping or third-party disclosure requirements. Consequently, there is no need for review by the Office of Management and Budget under the authority of the Paperwork Reduction Act of 1995.

Dated: April 13, 2015.

Andrew M. Slavitt,

Acting Administrator, Centers for Medicare & Medicaid Services.

[FR Doc. 2015-08917 Filed 4-16-15; 8:45 am]

BILLING CODE 4120-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Administration for Children and Families

Proposed Information Collection Activity; Comment Request

Proposed Projects

Title: Initial Medical Exam Form and Initial Dental Exam Form.

OMB No.: New.

Description

Pursuant to Exhibit 1, part A.2 of the Flores Settlement Agreement (*Jenny Lisette Flores, et al., v. Janet Reno, Attorney General of the United States, et al.*, Case No. CV 85-4544-RJK (C.D. Cal. 1996), licensed programs, on behalf of the Administration for Children and Families' Office of Refugee Resettlement (ORR), shall arrange for appropriate routine medical and dental care, family planning services, and emergency health care services, including a complete medical examination (including screening for infectious disease) within 48 hours of admission, excluding weekends and holidays, unless the minor was recently examined at another facility; appropriate immunizations in accordance with the U.S. Public Health Service (PHS), Center for Disease Control; administration of prescribed medication and special diets; appropriate mental health interventions when necessary for each minor in its care.

The forms are to be used as worksheets for clinicians, medical staff, and the health department to compile information that would otherwise have been collected during the initial medical or dental exam. Once completed, the forms will be given to shelter staff for data entry into ORR's electronic data repository known as 'The Portal.' Data will be used to record UC health on admission and for case management of any identified illnesses/conditions.

Respondents: Clinicians, Health Department staff, Office of Refugee Resettlement Grantee staff.

ANNUAL BURDEN ESTIMATES

Instrument	Number of respondents	Number of responses per respondent	Average burden hours per response	Total burden hours
Initial Medical Exam Form (including Appendix A: Supplemental TB Screening Form)	206	155	.25	7982.5
Initial Dental Exam Form	116	28	.08	259.8

Estimated Total Annual Burden Hours: 8242.3.

In compliance with the requirements of Section 506(c)(2)(A) of the Paperwork Reduction Act of 1995, the Administration for Children and Families is soliciting public comment on the specific aspects of the information collection described above. Copies of the proposed collection of information can be obtained and comments may be forwarded by writing to the Administration for Children and Families, Office of Planning, Research and Evaluation, 370 L'Enfant Promenade SW., Washington, DC 20447, Attn: ACF Reports Clearance Officer. Email address: infocollection@acf.hhs.gov. All requests should be identified by the title of the information collection.

The Department specifically requests comments on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information; (c) the quality, utility, and clarity of the

information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology. Consideration will be given to comments and suggestions submitted within 60 days of this publication.

Robert Sargis,
Reports Clearance Officer.
 [FR Doc. 2015-08835 Filed 4-16-15; 8:45 am]
BILLING CODE 4184-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Administration for Children and Families

Submission for OMB Review; Comment Request

Title: Community-Based Family Resource and Support Grants.
OMB No.: 0970-0155.
Description: The Program Instruction, prepared in response to the enactment of the Community-Based Grants for the Prevention of Child Abuse and Neglect (administratively known as the

Community Based Child Abuse Prevention Program, (CBCAP)), as set forth in Title II of Public Law 111-320, Child Abuse Prevention and Treatment Act Amendments of 2010, provides direction to the States and Territories to accomplish the purposes of (1) to support community-based efforts to develop, operate, expand, enhance, and coordinate initiatives, programs, and activities to prevent child abuse and neglect and to support the coordination of resources and activities to better strengthen and support families to reduce the likelihood of child abuse and neglect; and (2) to foster understanding, appreciation and knowledge of diverse populations in order to effectively prevent and treat child abuse and neglect. This Program Instruction contains information collection requirements that are found in (Pub. L. 111-320) at sections 201; 202; 203; 205; 206; and pursuant to receiving a grant award. The information submitted will be used by the agency to ensure compliance with the statute, complete the calculation of the grant award entitlement, and provide training and technical assistance to the grantee.

Respondents: State Governments.

ANNUAL BURDEN ESTIMATES

Instrument	Number of respondents	Number of responses per respondent	Average burden hours per response	Total burden hours
Application	52	1	40	2,080
Annual Report	52	1	24	1,248

Estimated Total Annual Burden Hours: 3,328.

Additional Information: Copies of the proposed collection may be obtained by writing to the Administration for Children and Families, Office of Planning, Research and Evaluation, 370 L'Enfant Promenade, SW., Washington, DC 20447, Attn: ACF Reports Clearance Officer. All requests should be identified by the title of the information collection. Email address: infocollection@acf.hhs.gov.

OMB Comment: OMB is required to make a decision concerning the collection of information between 30

and 60 days after publication of this document in the **Federal Register**. Therefore, a comment is best assured of having its full effect if OMB receives it within 30 days of publication. Written comments and recommendations for the proposed information collection should be sent directly to the following: Office of Management and Budget, Paperwork Reduction Project, Fax: 202-395-7285, Email: OIRA_SUBMISSION@OMB.EOP.GOV, Attn: Desk Officer for

the Administration for Children and Families.

Robert Sargis,
Reports Clearance Officer.
 [FR Doc. 2015-08866 Filed 4-16-15; 8:45 am]
BILLING CODE 4184-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Administration for Children and Families

Proposed Information Collection Activity; Comment Request

Proposed Projects

Title: Grants to States for Access and Visitation

OMB No.: 0970-0204

Description: On an annual basis, States must provide OCSE with data on programs that the Grants to States for Access and Visitation Program has funded. These program reporting requirements include, but are not limited to, the collection of data on the number of parents served, types of services delivered, program outcomes, client socio economic data, referrals

sources, and other relevant data including the number of noncustodial parents who were able to obtain increased parenting time with their children.

Respondents: State Child Access and Visitation Programs and State and/or local service providers.

ANNUAL BURDEN ESTIMATES

Instrument	Number of respondents	Number of responses per respondent	Average burden hours per response	Total burden hours
Online Portal Survey by States and Jurisdictions	54	1	16	864
Survey of local service grantees	331	1	16	5,296

Estimated Total Annual Burden Hours: 6,160.

In compliance with the requirements of section 506(c)(2)(A) of the Paperwork Reduction Act of 1995, the Administration for Children and Families is soliciting public comment on the specific aspects of the information collection described above. Copies of the proposed collection of information can be obtained and comments may be forwarded by writing to the Administration for Children and Families, Office of Planning, Research and Evaluation, 370 L'Enfant Promenade SW., Washington, DC 20447, Attn: ACF Reports Clearance Officer. Email address: infocollection@acf.hhs.gov. All requests should be identified by the title of the information collection.

The Department specifically requests comments on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information; (c) the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology. Consideration will be given to comments and suggestions submitted within 60 days of this publication.

Robert Sargis,

Reports Clearance Officer.

[FR Doc. 2015-08842 Filed 4-16-15; 8:45 am]

BILLING CODE 4184-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA-2014-E-0152]

Determination of Regulatory Review Period for Purposes of Patent Extension; RAVICTI

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) has determined the regulatory review period for RAVICTI and is publishing this notice of that determination as required by law. FDA has made the determination because of the submission of an application to the Director of the U.S. Patent and Trademark Office (USPTO), Department of Commerce, for the extension of a patent which claims that human drug product.

ADDRESSES: Submit electronic comments to <http://www.regulations.gov>. Submit written petitions (two copies are required) and written comments to the Division of Dockets Management (HFA-305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. Submit petitions electronically to <http://www.regulations.gov> at Docket No. FDA-2013-S-0610.

FOR FURTHER INFORMATION CONTACT: Beverly Friedman, Office of Management, Food and Drug Administration, 10001 New Hampshire Ave., Hillandale Campus Rm. 3180, Silver Spring, MD 20993, 301-796-7900.

SUPPLEMENTARY INFORMATION: The Drug Price Competition and Patent Term

Restoration Act of 1984 (Pub. L. 98-417) and the Generic Animal Drug and Patent Term Restoration Act (Pub. L. 100-670) generally provide that a patent may be extended for a period of up to 5 years so long as the patented item (human drug product, animal drug product, medical device, food additive, or color additive) was subject to regulatory review by FDA before the item was marketed. Under these acts, a product's regulatory review period forms the basis for determining the amount of extension an applicant may receive.

A regulatory review period consists of two periods of time: A testing phase and an approval phase. For human drug products, the testing phase begins when the exemption to permit the clinical investigations of the drug becomes effective and runs until the approval phase begins. The approval phase starts with the initial submission of an application to market the human drug product and continues until FDA grants permission to market the drug product. Although only a portion of a regulatory review period may count toward the actual amount of extension that the Director of USPTO may award (for example, half the testing phase must be subtracted as well as any time that may have occurred before the patent was issued), FDA's determination of the length of a regulatory review period for a human drug product will include all of the testing phase and approval phase as specified in 35 U.S.C. 156(g)(1)(B).

FDA has approved for marketing the human drug product RAVICTI (glycerol phenylbutyrate). RAVICTI is indicated for use as a nitrogen-binding agent for chronic management of adult and pediatric patients 2 years of age or older with urea cycle disorders that cannot be managed by dietary protein restriction

and/or amino acid supplementation alone. Subsequent to this approval, the USPTO received a patent term restoration application for RAVICTI (U.S. Patent No. 5,968,979) from Hyperion Therapeutics, Inc., and the USPTO requested FDA's assistance in determining this patent's eligibility for patent term restoration. In a letter dated May 2, 2014, FDA advised the USPTO that this human drug product had undergone a regulatory review period and that the approval of RAVICTI represented the first permitted commercial marketing or use of the product. Thereafter, the USPTO requested that FDA determine the product's regulatory review period.

FDA has determined that the applicable regulatory review period for RAVICTI is 2,126 days. Of this time, 1,719 days occurred during the testing phase of the regulatory review period, while 407 days occurred during the approval phase. These periods of time were derived from the following dates:

1. *The date an exemption under section 505(i) of the Federal Food, Drug, and Cosmetic Act (the FD&C Act) (21 U.S.C. 355(i)) became effective:* April 10, 2007. The applicant claims April 8, 2006, as the date the investigational new drug application (IND) became effective. However, FDA records indicate that the IND effective date was April 10, 2007, when the IND was removed from clinical hold.

2. *The date the application was initially submitted with respect to the human drug product under section 505(b) of the FD&C Act:* December 23, 2011. FDA has verified the applicant's claim that the new drug application (NDA) for RAVICTI (NDA 203284) was submitted on December 23, 2011.

3. *The date the application was approved:* February 1, 2013. FDA has verified the applicant's claim that NDA 203284 was approved on February 1, 2013.

This determination of the regulatory review period establishes the maximum potential length of a patent extension. However, the USPTO applies several statutory limitations in its calculations of the actual period for patent extension. In its application for patent extension, this applicant seeks 1,450 days of patent term extension.

Anyone with knowledge that any of the dates as published are incorrect may submit to the Division of Dockets Management (see **ADDRESSES**) either electronic or written comments and ask for a redetermination by June 16, 2015. Furthermore, any interested person may petition FDA for a determination regarding whether the applicant for extension acted with due diligence

during the regulatory review period by October 14, 2015. To meet its burden, the petition must contain sufficient facts to merit an FDA investigation. (See H. Rept. 857, part 1, 98th Cong., 2d sess., pp. 41–42, 1984.) Petitions should be in the format specified in 21 CFR 10.30.

Interested persons may submit to the Division of Dockets Management (see **ADDRESSES**) electronic or written comments and written or electronic petitions. It is only necessary to send one set of comments. Identify comments with the docket number found in brackets in the heading of this document. If you submit a written petition, two copies are required. A petition submitted electronically must be submitted to <http://www.regulations.gov>, Docket No. FDA–2013–S–0610. Comments and petitions that have not been made publicly available on <http://www.regulations.gov> may be viewed in the Division of Dockets Management between 9 a.m. and 4 p.m., Monday through Friday.

Dated: April 14, 2015.

Leslie Kux,

Associate Commissioner for Policy.

[FR Doc. 2015–08845 Filed 4–16–15; 8:45 am]

BILLING CODE 4164–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2015–N–0001]

Addressing Inadequate Information on Important Health Factors in Pharmacoepidemiology Studies Relying on Healthcare Databases; Public Workshop

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice of public workshop.

The Food and Drug Administration (FDA) is announcing a public workshop, cosponsored by FDA and the University of Maryland Center for Excellence in Regulatory Science and Innovation, entitled “Methodological Considerations to Address Unmeasured Information About Important Health Factors in Pharmacoepidemiology Studies that Rely on Electronic Healthcare Databases to Evaluate the Safety of Regulated Pharmaceutical Products in the Postapproval Setting.” The purpose of the public workshop is to engage in constructive dialogue among regulators, academicians, pharmaceutical industry, clinicians, other stakeholders and the general public on potential strategies to improve

availability of information on important health factors in pharmacoepidemiology studies that rely on electronic healthcare databases to evaluate the safety of pharmaceutical products in the postapproval setting. Electronic healthcare databases are increasingly being used in the postapproval assessment of the safety profile of pharmaceutical drug products.

Date and Time: The public workshop will be held on May 4, 2015, 8 a.m. to 5 p.m.

Location: The public workshop will be held at FDA White Oak Campus, 10903 New Hampshire Ave., Bldg. 31 Conference Center, the Great Room (Rm. 1503), Silver Spring, MD 20993–0002. Entrance for the public workshop participants (non-FDA employees) is through Building 1 where routine security check procedures will be performed. For parking and security information, please refer to <http://www.fda.gov/AboutFDA/WorkingatFDA/BuildingsandFacilities/WhiteOakCampusInformation/ucm241740.htm>.

Contact Person: Leslie Wheelock, Office of the Commissioner, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 1, Rm. 4345, Silver Spring, MD, 301–796–4580, FAX: 301–847–8106, leslie.wheelock@fda.hhs.gov.

Registration: Submit your online registration information (including name, title, firm name, address, telephone and fax numbers) by April 30, 2015, at: <http://www.pharmacy.umaryland.edu/centers/cersievents/biasinbigdata/>. There is no registration fee for University of Maryland faculty, students, and staff, University of Maryland Center for Excellence in Regulatory Science and Innovation Industrial Consortia Members, and Federal Government employees. There is a \$50.00 registration fee for all other participants. Early registration is recommended because seating is limited. There will be no onsite registration.

If you need special accommodations due to a disability, please contact Leslie Wheelock (see *Contact Person*) at least 7 days in advance.

SUPPLEMENTARY INFORMATION:

In many instances, these resources allow for the timely evaluation of drug-related adverse events since data on healthcare utilized by a large number of individuals are readily available. However, because these data are typically collected for administrative purposes, information on important health factors necessary to evaluate drug-outcome relationship may be

absent or incomplete in these data sources. Examples include tobacco/smoking use and history, alcohol consumption, weight and height, patient and family medical history, or use of over-the-counter medications. Incomplete capture or the absence of this information can result in biased or uncertain estimates for the drug-outcome relationship of interest leading to inadequate evaluation of the safety profile of prescription drug products.

Webcast: Please be advised that as soon as possible after a Webcast of the public workshop is available, it will be accessible at: <http://www.fda.gov/ScienceResearch/SpecialTopics/RegulatoryScience/ucm429136.htm>.

Dated: April 13, 2015.

Leslie Kux,

Associate Commissioner for Policy.

[FR Doc. 2015-08846 Filed 4-16-15; 8:45 am]

BILLING CODE 4164-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute on Drug Abuse; Notice of Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of a meeting of the National Advisory Council on Drug Abuse.

The meeting will be open to the public as indicated below, with attendance limited to space available. Individuals who plan to attend and need special assistance, such as sign language interpretation or other reasonable accommodations, should notify the Contact Person listed below in advance of the meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and/or contract proposals and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications and/or contract proposals, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Advisory Council on Drug Abuse.

Date: May 5-6, 2015.

Closed: May 5, 2015, 1:00 p.m. to 3:00 p.m.

Agenda: To review and evaluate grant applications and/or proposals.

Place: National Institutes of Health, Neuroscience Center, 6001 Executive Boulevard, Rockville, MD 20852.

Open: May 6, 2015, 8:30 a.m. to 2:00 p.m.

Agenda: This portion of the meeting will be open to the public for announcements and reports of administrative, legislative, and program developments in the drug abuse field.

Place: National Institutes of Health, Neuroscience Center, 6001 Executive Boulevard, Rockville, MD 20852.

Contact Person: Susan R.B. Weiss, Ph.D., Director, Division of Extramural Research, Office of the Director, National Institute on Drug Abuse, NIH, DHHS, 6001 Executive Boulevard, NSC, Room 5274, MSC 9591, Rockville, MD 20892, 301-443-6487, sweiss@nida.nih.gov.

Any member of the public interested in presenting oral comments to the committee may notify the Contact Person listed on this notice at least 10 days in advance of the meeting. Interested individuals and representatives of organizations may submit a letter of intent, a brief description of the organization represented, and a short description of the oral presentation. Only one representative of an organization may be allowed to present oral comments and if accepted by the committee, presentations may be limited to five minutes. Both printed and electronic copies are requested for the record. In addition, any interested person may file written comments with the committee by forwarding their statement to the Contact Person listed on this notice. The statement should include the name, address, telephone number and when applicable, the business or professional affiliation of the interested person.

Information is also available on the Institute's/Center's home page: www.drugabuse.gov/NACDA/NACDAHome.html where an agenda and any additional information for the meeting will be posted when available.

(Catalogue of Federal Domestic Assistance Program Nos.: 93.279, Drug Abuse and Addiction Research Programs, National Institutes of Health, HHS)

Dated: April 13, 2015.

Carolyn Baum,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2015-08800 Filed 4-16-15; 8:45 am]

BILLING CODE 4140-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute of Nursing Research; Notice of Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of a meeting of the National Advisory Council for Nursing Research.

The meeting will be open to the public as indicated below, with attendance limited to space available. Individuals who plan to attend and need special assistance, such as sign language interpretation or other reasonable accommodations, should notify the Contact Person listed below in advance of the meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and/or contract proposals and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications and/or contract proposals, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Advisory Council for Nursing Research.

Date: May 19-20, 2015.

Open: May 19, 2015, 1:00 p.m. to 5:00 p.m.

Agenda: Discussion of Program Policies and Issues.

Place: National Institutes of Health, Building 31, 31 Center Drive, 6th Floor, C Wing, Room 6, Bethesda, MD 20892.

Closed: May 20, 2015, 9:00 a.m. to 1:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Building 31, 31 Center Drive, 6th Floor, C Wing, Room 6, Bethesda, MD 20892.

Contact Person: Ann R. Knebel, DNSC, RN, FAAN, Deputy Director, National Institute of Nursing Research, National Institutes of Health, 31 Center Drive, Building 31, Room 5B05, Bethesda, MD 20892, 301-496-8230, knebelar@mail.nih.gov.

Any interested person may file written comments with the committee by forwarding the statement to the Contact Person listed on this notice. The statement should include the name, address, telephone number and when applicable, the business or professional affiliation of the interested person.

In the interest of security, NIH has instituted stringent procedures for entrance onto the NIH campus. All visitor vehicles, including taxicabs, hotel, and airport shuttles will be inspected before being allowed on campus. Visitors will be asked to show one form of identification (for example, a government-issued photo ID, driver's license, or passport) and to state the purpose of their visit.

Information is also available on the Institute's/Center's home page: www.nih.gov/ninr/a_advisory.html, where an agenda and any additional information for the meeting will be posted when available.

(Catalogue of Federal Domestic Assistance Program Nos. 93.361, Nursing Research, National Institutes of Health, HHS)

Dated: April 13, 2015.

Carolyn Baum,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2015-08802 Filed 4-16-15; 8:45 am]

BILLING CODE 4140-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute on Drug Abuse; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of a meeting of the Board of Scientific Counselors, NIDA.

The meeting will be closed to the public as indicated below in accordance with the provisions set forth in section 552b(c)(6), Title 5 U.S.C., as amended for the review, discussion, and evaluation of individual intramural programs and projects conducted by the National Institute on Drug Abuse, including consideration of personnel qualifications and performance, and the competence of individual investigators, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: Board of Scientific Counselors, NIDA.

Date: April 29–30, 2015.

Closed: 8:30 a.m. to 5 p.m.

Agenda: To review and evaluate personal qualifications and performance, and competence of individual investigators.

Place: Intramural Research Program, National Institute on Drug Abuse, NIH, Johns Hopkins Bayview Campus, Baltimore, MD 21223.

Contact Person: Joshua Kysiak, Program Specialist, Biomedical Research Center, Intramural Research Program, National Institute on Drug Abuse, NIH, DHHS, 251 Bayview Boulevard, Baltimore, MD 21224, 443-740-2465, kysiakjo@nida.nih.gov.

This notice is being published less than 15 days prior to the meeting due to the urgent need to meet timing limitations imposed by the intramural research review cycle.

(Catalogue of Federal Domestic Assistance Program Nos.: 93.279, Drug Abuse and Addiction Research Programs, National Institutes of Health, HHS)

Dated: April 13, 2015.

Carolyn Baum,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2015-08799 Filed 4-16-15; 8:45 am]

BILLING CODE 4140-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Cancer Institute; Notice of Closed Meetings

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of the following meetings.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Cancer Institute Special Emphasis Panel; NCI Program Project Meeting III (P01).

Date: June 9–10, 2015.

Time: 8:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Hilton Washington DC/Rockville Hotel and Executive Meeting Center, 1750 Rockville Pike, Rockville, MD 20852.

Contact Person: Majed M. Hamawy, Ph.D., Scientific Review Officer, Research Programs Review Branch, Division of Extramural Activities, National Cancer Institute, NIH, 9609 Medical Center Drive, Room 7W120, Rockville, MD 20850, 240-276-6457, mh101v@nih.gov.

Name of Committee: National Cancer Institute Initial Review Group; Subcommittee I-Transition to Independence.

Date: June 9–10, 2015.

Time: 8:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Hilton Alexandria Old Town, 1767 King Street, Alexandria, VA 22314.

Contact Person: Sergei Radaev, Ph.D., Scientific Review Officer, Resources and Training Review Branch, Division of Extramural Activities, National Cancer Institute, NIH, 9609 Medical Center Drive, Room 7W114, Rockville, MD 20852, 240-276-6466, sradaev@mail.nih.gov.

Name of Committee: National Cancer Institute Special Emphasis Panel; Omnibus SEP-4.

Date: June 11–12, 2015.

Time: 7:30 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Bethesda North Marriott Hotel & Conference Center, 5701 Marinelli Road, North Bethesda, MD 20852.

Contact Person: Clifford W. Schweinfest, Ph.D., Scientific Review Officer, Special Review Branch, Division of Extramural Activities, National Cancer Institute, NIH, 9609 Medical Center Drive, Room 7W108,

Bethesda, MD 20892-9750, 240-276-6343 schweinfestcw@mail.nih.gov.

Name of Committee: National Cancer Institute Special Emphasis Panel; NCI Omnibus R03 & R21/SEP-8.

Date: June 16–17, 2015.

Time: 8:00 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Doubletree by Hilton Bethesda, 8120 Wisconsin Avenue, Bethesda, MD 20892.

Contact Person: Yisong Wang, Ph.D., Scientific Review Officer, Special Review Branch, Division of Extramural Activities, National Cancer Institute, NIH, 9609 Medical Center Drive, Room 7W240, Rockville, MD 20850, 240-276-7157, yisong.wang@nih.gov.

Information is also available on the Institute's/Center's home page: <http://deainfo.nci.nih.gov/advisory/sep/sep.htm>, <http://deainfo.nci.nih.gov/advisory/irg/irg.htm>, where an agenda and any additional information for the meeting will be posted when available.

(Catalogue of Federal Domestic Assistance Program Nos. 93.392, Cancer Construction; 93.393, Cancer Cause and Prevention Research; 93.394, Cancer Detection and Diagnosis Research; 93.395, Cancer Treatment Research; 93.396, Cancer Biology Research; 93.397, Cancer Centers Support; 93.398, Cancer Research Manpower; 93.399, Cancer Control, National Institutes of Health, HHS)

Dated: April 13, 2015.

Melanie J. Gray,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2015-08803 Filed 4-16-15; 8:45 am]

BILLING CODE 4140-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Heart, Lung, and Blood Institute; Notice of Closed Meetings

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of the following meetings.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications, contract proposals and their discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications or contract proposals, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Heart, Lung, and Blood Institute Special Emphasis Panel; NHLBI Short-Term Experience in Research.

Date: May 8, 2015.

Time: 11:00 a.m. to 1:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, 6701 Rockledge Drive, Room 7194, Bethesda, MD 20892 (Telephone Conference Call).

Contact Person: Charles Joyce, Ph.D., Scientific Review Officer, Office of Scientific Review/DERA, National Heart, Lung, and Blood Institute, 6701 Rockledge Drive, Room 7196, Bethesda, MD 20892-7924, 301-435-0288, cjoyce@nhlbi.nih.gov.

Name of Committee: National Heart, Lung, and Blood Institute Special Emphasis Panel; Maintenance of the NHLBI Biologic Specimen Repository.

Date: May 12, 2015.

Time: 1:00 p.m. to 4:00 p.m.

Agenda: To review and evaluate contract proposals.

Place: National Institutes of Health, 6701 Rockledge Drive, Room 7178, Bethesda, MD 20892 (Telephone Conference Call).

Contact Person: William J. Johnson, Ph.D., Scientific Review Officer, Office of Scientific Review/DERA, National Heart, Lung, and Blood Institute, 6701 Rockledge Drive, Room 7178, Bethesda, MD 20892-7924, 301-435-0725 johnsonwj@nhlbi.nih.gov.

(Catalogue of Federal Domestic Assistance Program Nos. 93.233, National Center for Sleep Disorders Research; 93.837, Heart and Vascular Diseases Research; 93.838, Lung Diseases Research; 93.839, Blood Diseases and Resources Research, National Institutes of Health, HHS)

Dated: April 13, 2015.

Carolyn Baum,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2015-08801 Filed 4-16-15; 8:45 am]

BILLING CODE 4140-01-P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[USCG-2015-0005; OMB Control Numbers 1625-(0032, 0043, 0044, 0081, 0113)]

Collection of Information Under Review by Office of Management and Budget

AGENCY: Coast Guard, DHS.

ACTION: Thirty-day notice requesting comments.

SUMMARY: In compliance with the Paperwork Reduction Act of 1995, the U.S. Coast Guard is forwarding Information Collection Requests (ICRs), abstracted below, to the Office of Management and Budget (OMB), Office of Information and Regulatory Affairs (OIRA), requesting approval of a revision to the following collections of information: 1625-0032, Vessel Inspection Related Forms and Reporting Requirements Under Title 46 U.S.C.;

1625-0043, Ports and Waterways Safety—Title 33 CFR Subchapter P; 1625-0044, Outer Continental Shelf Activities—Title 33 CFR Subchapter N; 1625-0081, Alternate Compliance Program; and 1625-0113, Crewmember Identification Documents. Review and comments by OIRA ensure we only impose paperwork burdens commensurate with our performance of duties.

DATES: Comments must reach the Coast Guard and OIRA on or before May 18, 2015.

ADDRESSES: You may submit comments identified by Coast Guard docket number [USCG-2015-0005] to the Docket Management Facility (DMF) at the U.S. Department of Transportation (DOT) and/or to OIRA. To avoid duplicate submissions, please use only one of the following means:

(1) Online: (a) To Coast Guard docket at <http://www.regulations.gov>. (b) To OIRA by email via: OIRA-submission@omb.eop.gov.

(2) Mail: (a) DMF (M-30), DOT, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590-0001. (b) To OIRA, 725 17th Street NW., Washington, DC 20503, attention Desk Officer for the Coast Guard.

(3) Hand Delivery: To DMF address above, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is 202-366-9329.

(4) Fax: (a) To DMF, 202-493-2251. (b) To OIRA at 202-395-6566. To ensure your comments are received in a timely manner, mark the fax, attention Desk Officer for the Coast Guard.

The DMF maintains the public docket for this Notice. Comments and material received from the public, as well as documents mentioned in this Notice as being available in the docket, will become part of the docket and will be available for inspection or copying at Room W12-140 on the West Building Ground Floor, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. You may also find the docket on the Internet at <http://www.regulations.gov>.

Copies of the ICRs are available through the docket on the Internet at <http://www.regulations.gov>. Additionally, copies are available from: COMMANDANT (CG-612), ATTN: PAPERWORK REDUCTION ACT MANAGER, U.S. COAST GUARD, 2703 MARTIN LUTHER KING JR AVE SE., STOP 7710, WASHINGTON DC 20593-7710.

FOR FURTHER INFORMATION: Contact Mr. Anthony Smith, Office of Information Management, telephone 202-475-3532 or fax 202-372-8405, for questions on these documents. Contact Ms. Cheryl Collins, Program Manager, Docket Operations, 202-366-9826, for questions on the docket.

SUPPLEMENTARY INFORMATION:

Public Participation and Request for Comments

This Notice relies on the authority of the Paperwork Reduction Act of 1995; 44 U.S.C. Chapter 35, as amended. An ICR is an application to OIRA seeking the approval, extension, or renewal of a Coast Guard collection of information (Collection). The ICR contains information describing the Collection's purpose, the Collection's likely burden on the affected public, an explanation of the necessity of the Collection, and other important information describing the Collections. There is one ICR for each Collection.

The Coast Guard invites comments on whether these ICRs should be granted based on the Collections being necessary for the proper performance of Departmental functions. In particular, the Coast Guard would appreciate comments addressing: (1) The practical utility of the Collections; (2) the accuracy of the estimated burden of the Collections; (3) ways to enhance the quality, utility, and clarity of information subject to the Collections; and (4) ways to minimize the burden of the Collections on respondents, including the use of automated collection techniques or other forms of information technology. These comments will help OIRA determine whether to approve the ICRs referred to in this Notice.

We encourage you to respond to this request by submitting comments and related materials. Comments to Coast Guard or OIRA must contain the OMB Control Number of the ICR. They must also contain the docket number of this request, [USCG 2015-0005], and must be received by May 18, 2015. We will post all comments received, without change, to <http://www.regulations.gov>. They will include any personal information you provide. We have an agreement with DOT to use their DMF. Please see the "Privacy Act" paragraph below.

Submitting Comments

If you submit a comment, please include the docket number [USCG-2015-0005]; indicate the specific section of the document to which each comment applies, providing a reason for each comment. You may submit your

comments and material online (via <http://www.regulations.gov>), by fax, mail, or hand delivery, but please use only one of these means. If you submit a comment online via www.regulations.gov, it will be considered received by the Coast Guard when you successfully transmit the comment. If you fax, hand deliver, or mail your comment, it will be considered as having been received by the Coast Guard when it is received at the DMF. We recommend you include your name, mailing address, an email address, or other contact information in the body of your document so that we can contact you if we have questions regarding your submission.

You may submit comments and material by electronic means, mail, fax, or hand delivery to the DMF at the address under **ADDRESSES**, but please submit them by only one means. To submit your comment online, go to <http://www.regulations.gov>, and type "USCG-2015-0005" in the "Search" box. If you submit your comments by mail or hand delivery, submit them in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. If you submit comments by mail and would like to know that they reached the Facility, please enclose a stamped, self-addressed postcard or envelope. We will consider all comments and material received during the comment period and will address them accordingly.

Viewing Comments and Documents

To view comments, as well as documents mentioned in this Notice as being available in the docket, go to <http://www.regulations.gov>, click on the "read comments" box, which will then become highlighted in blue. In the "Search" box insert "USCG-2015-0005" and click "Search." Click the "Open Docket Folder" in the "Actions" column. You may also visit the DMF in Room W12-140 on the ground floor of the DOT West Building, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

OIRA posts its decisions on ICRs online at <http://www.reginfo.gov/public/do/PRAMain> after the comment period for each ICR. An OMB Notice of Action on each ICR will become available via a hyperlink in the OMB Control Numbers: 1625-(0032, 0043, 0044, 0081, 0113).

Privacy Act

Anyone can search the electronic form of comments received in dockets by the name of the individual

submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review a Privacy Act statement regarding Coast Guard public dockets in the January 17, 2008, issue of the **Federal Register** (73 FR 3316).

Previous Request for Comments

This request provides a 30-day comment period required by OIRA. The Coast Guard published the 60-day notice (80 FR 8334, February 17, 2015) required by 44 U.S.C. 3506(c)(2). That Notice elicited no comments.

Information Collection Requests

1. *Title:* Vessel Inspection Related Forms and Reporting Requirements Under Title 46 U.S.C.

OMB Control Number: 1625-0032.

Type of Request: Revision of a currently approved collection.

Respondents: Owners, operators, agents and masters of vessels.

Abstract: This collection of information requires owners, operators, agents or masters of certain inspected vessels to obtain and/or post various forms as part of the Coast Guard's Commercial Vessel safety Program.

Forms: CG-841, CG-854, CG-948, CG-949, CG-950, CG-950A and CG-2832.

Burden Estimate: The estimated burden has increased from 1,601 hours to 1,642 hours a year due to an increase in the estimated annual number of respondents.

2. *Title:* Ports and Waterways Safety—Title 33 CFR Subchapter P.

OMB Control Number: 1625-0043.

Type of Request: Revision of a currently approved collection.

Respondents: Master, owner, or agent of a vessel.

Abstract: The collection of information allows the master, owner, or agent of a vessel affected by these rules to request deviation from the navigation safety equipment requirements to the extent that there is no reduction in safety.

Forms: None.

Burden Estimate: The estimated burden has decreased from 2,447 hours to 2,110 hours a year due to a decrease in the estimated number of responses.

3. *Title:* Outer Continental Shelf Activities—Title 33 CFR Subchapter N.

OMB Control Number: 1625-0044.

Type of Request: Revision of a currently approved collection.

Respondents: Operators of facilities and vessels engaged in activities on the OCS.

Abstract: The Outer Continental Shelf Lands Act, as amended, authorizes the Coast Guard to promulgate and enforce

regulations promoting the safety of life and property on OCS facilities. Title 33 Subchapter N promulgates the regulations. The information is needed to ensure compliance with the safety regulations related to OCS activities.

Forms: CG-5432.

Burden Estimate: The estimated burden has increased from 6,304 hours to 8,407 hours a year due to an increase in the estimated number of responses.

4. *Title:* Alternate Compliance Program.

OMB Control Number: 1625-0081.

Type of Request: Revision of a currently approved collection.

Respondents: Owners and operators of U.S.-flag inspected vessels.

Abstract: This information is used by the Coast Guard to assess vessels participating in the voluntary Alternate Compliance Program (ACP) before issuance of a Certificate of Inspection.

Forms: None.

Burden Estimate: The estimated burden has decreased from 176 hours to 152 hours a year due to a decrease in the annual number of respondents.

5. *Title:* Crewmember Identification Documents.

OMB Control Number: 1625-0113.

Type of Request: Revision of a currently approved collection.

Respondents: Crewmembers and operators of certain vessels.

Abstract: This information collection covers requirements that crewmembers on vessels calling at U.S. ports must carry and present on demand an identification that allows the identity of crewmembers to be authoritatively validated.

Forms: None.

Burden Estimate: The estimated burden has increased from 30,275 hours to 34,293 hours a year due to an increase in the estimated time to acquire an acceptable identification document.

Authority: The Paperwork Reduction Act of 1995; 44 U.S.C. Chapter 35, as amended.

Dated: April 1, 2015.

Thomas P. Michelli,

Deputy Chief Information Officer, U.S. Coast Guard.

[FR Doc. 2015-08916 Filed 4-16-15; 8:45 am]

BILLING CODE 9110-04-P

DEPARTMENT OF HOMELAND SECURITY**Federal Emergency Management Agency**

[Internal Agency Docket No. FEMA-4212-DR; Docket ID FEMA-2015-0002]

Rhode Island; Major Disaster and Related Determinations**AGENCY:** Federal Emergency Management Agency, DHS.**ACTION:** Notice.**SUMMARY:** This is a notice of the Presidential declaration of a major disaster for the State of Rhode Island (FEMA-4212-DR), dated April 3, 2015, and related determinations.**DATES:** *Effective:* April 3, 2015.**FOR FURTHER INFORMATION CONTACT:** Dean Webster, Office of Response and Recovery, Federal Emergency Management Agency, 500 C Street SW., Washington, DC 20472, (202) 646-2833.**SUPPLEMENTARY INFORMATION:** Notice is hereby given that, in a letter dated April 3, 2015, the President issued a major disaster declaration under the authority of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121 *et seq.* (the "Stafford Act"), as follows:

I have determined that the damage in certain areas of the State of Rhode Island resulting from a severe winter storm and snowstorm during the period of January 26-28, 2015, is of sufficient severity and magnitude to warrant a major disaster declaration under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121 *et seq.* (the "Stafford Act"). Therefore, I declare that such a major disaster exists in the State of Rhode Island.

In order to provide Federal assistance, you are hereby authorized to allocate from funds available for these purposes such amounts as you find necessary for Federal disaster assistance and administrative expenses.

You are authorized to provide Public Assistance in the designated areas and Hazard Mitigation throughout the State. You are further authorized to provide snow assistance under the Public Assistance program for a limited period of time during or proximate to the incident period.

Consistent with the requirement that Federal assistance be supplemental, any Federal funds provided under the Stafford Act for Hazard Mitigation will be limited to 75 percent of the total eligible costs. Federal funds provided under the Stafford Act for Public Assistance also will be limited to 75 percent of the total eligible costs, with the exception of projects that meet the eligibility criteria for a higher Federal cost-sharing percentage under the Public Assistance Alternative Procedures Pilot Program for Debris Removal implemented pursuant to section 428 of the Stafford Act.

Further, you are authorized to make changes to this declaration for the approved

assistance to the extent allowable under the Stafford Act.

The Federal Emergency Management Agency (FEMA) hereby gives notice that pursuant to the authority vested in the Administrator, under Executive Order 12148, as amended, Albert L. Lewis, of FEMA is appointed to act as the Federal Coordinating Officer for this major disaster.

The following areas of the State of Rhode Island have been designated as adversely affected by this major disaster:

Bristol, Kent, Newport, Providence, and Washington Counties for Public Assistance.

Bristol, Kent, Newport, Providence, and Washington Counties for snow assistance under the Public Assistance program for any continuous 48-hour period during or proximate the incident period.

All areas within the State of Rhode Island are eligible for assistance under the Hazard Mitigation Grant Program.

The following Catalog of Federal Domestic Assistance Numbers (CFDA) are to be used for reporting and drawing funds: 97.030, Community Disaster Loans; 97.031, Cora Brown Fund; 97.032, Crisis Counseling; 97.033, Disaster Legal Services; 97.034, Disaster Unemployment Assistance (DUA); 97.046, Fire Management Assistance Grant; 97.048, Disaster Housing Assistance to Individuals and Households In Presidially Declared Disaster Areas; 97.049, Presidially Declared Disaster Assistance—Disaster Housing Operations for Individuals and Households; 97.050, Presidially Declared Disaster Assistance to Individuals and Households—Other Needs; 97.036, Disaster Grants—Public Assistance (Presidially Declared Disasters); 97.039, Hazard Mitigation Grant.

W. Craig Fugate,*Administrator, Federal Emergency Management Agency.*

[FR Doc. 2015-08911 Filed 4-16-15; 8:45 am]

BILLING CODE 9111-23-P**DEPARTMENT OF HOMELAND SECURITY****Federal Emergency Management Agency**

[Docket ID: FEMA-2015-0003; OMB No. 1660-0068]

Agency Information Collection Activities: Submission for OMB Review; Comment Request; Federal Hotel and Motel Fire Safety Declaration Form.**AGENCY:** Federal Emergency Management Agency, DHS.**ACTION:** Notice.**SUMMARY:** The Federal Emergency Management Agency (FEMA) will submit the information collection abstracted below to the Office of

Management and Budget for review and clearance in accordance with the requirements of the Paperwork Reduction Act of 1995. The submission will describe the nature of the information collection, the categories of respondents, the estimated burden (*i.e.*, the time, effort and resources used by respondents to respond) and cost, and the actual data collection instruments FEMA will use.

DATES: Comments must be submitted on or before May 18, 2015.**ADDRESSES:** Submit written comments on the proposed information collection to the Office of Information and Regulatory Affairs, Office of Management and Budget. Comments should be addressed to the Desk Officer for the Department of Homeland Security, Federal Emergency Management Agency, and sent via electronic mail to oir.submission@omb.eop.gov or faxed to (202) 395-5806.**FOR FURTHER INFORMATION CONTACT:** Requests for additional information or copies of the information collection should be made to Director, Records Management Division, 500 C Street SW., Washington, DC 20472-3100, facsimile number (202) 212-4701, or email address FEMA-Information-Collections-Management@fema.dhs.gov.**SUPPLEMENTARY INFORMATION:****Collection of Information***Title:* Federal Hotel and Motel Fire Safety Declaration Form.*Type of information collection:* Extension, without change, of a currently approved information collection.*OMB Number:* 1660-0068.*Form Titles and Numbers:* FEMA Form 516-0-1, Federal Hotel and Motel Fire Safety Declaration Form.

Abstract: Applicants complete and submit the Hotel-Motel Declaration Form online through the USFA Web site (<http://www.usfa.dhs.gov/applications/hotel/>) or they may request a paper-based version. Applications submitted through the Web site are reviewed and, if approved, the applicant will receive a FEMA ID Number for their facility. Online submission is the preferred method selected by the majority applicants. Paper-based forms returned by traditional methods (USPS mail, special delivery, or facsimile) receive the same review process as those submitted online. Lodging establishments must meet a certain level of life-safety from fire, as defined in Pub. L. 101-391, to become eligible for listing on the NML. Federal employees use the NML to select lodging while traveling on government-related

business, but the list is also accessible to the general public.

Affected Public: Business or other for-profit; State, local or Tribal Government.

Estimated Number of Respondents: 2,294.

Estimated Total Annual Burden

Hours: 696 hours.

Estimated Cost: The estimated annual cost to respondents for the hour burden is \$35,004. There are no annual costs to respondents' operations and maintenance costs for technical services. There are no annual start-up or capital costs. The cost to the Federal Government is \$50,053.00.

Dated: April 13, 2015.

Janice Waller,

Acting Director, Records Management Division, Mission Support, Federal Emergency Management Agency, Department of Homeland Security.

[FR Doc. 2015-08914 Filed 4-16-15; 8:45 am]

BILLING CODE 9111-45-P

DEPARTMENT OF HOMELAND SECURITY

Public Availability of DHS Fiscal Year 2014 Service Contract Inventory

AGENCY: Office of the Chief Procurement Officer, DHS.

ACTION: Notice of availability.

SUMMARY: In accordance with Section 743 of Division C of the Consolidated Appropriations Act of 2010 (Pub. L. 111-117), the Department of Homeland Security (DHS) is publishing this notice to advise the public of the availability of the FY 2014 Service Contract inventory. This inventory provides information on service contract actions over \$25,000 that were awarded in FY 2014. The information is organized by function to show how contracted resources are distributed throughout the agency. DHS developed the inventory following the guidance issued on November 5, 2010 and December 19, 2011 by Office of Management and Budget's Office of Federal Procurement Policy (OFPP). This guidance is available at <http://www.whitehouse.gov/omb/procurement-service-contract-inventories>. Additionally, beginning with the FY 2014 inventory, agency inventories must include information collected from contractors on the amount invoiced and the direct labor hours expended on covered service contracts. The new requirement was published in the **Federal Register** on December 31, 2013 and is available at [https://www.federalregister.gov/articles/2013/12/31/2013-31148/federal-acquisition-regulation-service-contracts-](https://www.federalregister.gov/articles/2013/12/31/2013-31148/federal-acquisition-regulation-service-contracts-reporting-requirements)

<http://www.dhs.gov/acquisition-reports-and-notice#2> under "Acquisition Reports and Notices."

FOR FURTHER INFORMATION CONTACT: For questions about this notice, please contact Gail Carter at Gail.Carter@hq.dhs.gov, or telephone 202-447-5302.

Laura Auletta,

Executive Director, Procurement and Acquisition Workforce.

[FR Doc. 2015-08817 Filed 4-16-15; 8:45 am]

BILLING CODE 9110-9B-P

DEPARTMENT OF HOMELAND SECURITY

[Docket No. DHS-2015-0002]

President's National Security Telecommunications Advisory Committee Meeting

AGENCY: National Protection and Programs Directorate, DHS.

ACTION: Committee management; notice of partially closed Federal Advisory Committee meeting.

SUMMARY: The President's National Security Telecommunications Advisory Committee (NSTAC) will meet on Wednesday, May 6, 2015, in Washington, DC. The meeting will be partially closed to the public.

DATES: The NSTAC will meet in a closed session on Wednesday, May 6, 2015, from 9 a.m. to 11:15 a.m. and in an open session on Wednesday, May 6, 2015, from 12 p.m. to 2:30 p.m.

ADDRESSES: The meeting will be held at the Eisenhower Executive Office Building, Washington, DC. Due to limited seating, requests to attend in person will be on a first-come basis and the public portion of the meeting will be streamed via webcast at <http://www.whitehouse.gov/live>, as an alternative option. All those who wish to attend, please send an email to NSTAC@dhs.gov or call Suzanne Daage at 703-235-5461, to register for this meeting. For information on facilities or services for individuals with disabilities or to request special assistance at the meeting, contact nstac@dhs.gov as soon as possible.

The NSTAC is inviting public comment on the issues the committee will consider, as listed in the **SUPPLEMENTARY INFORMATION** section below. Associated briefing materials that will be discussed at the meeting will be available at www.dhs.gov/nstac for review on April 22, 2015. Comments may be submitted in writing at any time. Comments must be identified by docket

number DHS-2015-0002 and may be submitted by one of the following methods:

- **Federal eRulemaking Portal:** <http://www.regulations.gov>. Follow the instructions for submitting comments.

- **Email:** NSTAC@dhs.gov. Include the docket number in the subject line of the message.

- **Fax:** 703-235-5961, Attn: Suzanne Daage.

- **Mail:** Designated Federal Officer, National Security Telecommunications Advisory Committee, National Protection and Programs Directorate, Department of Homeland Security (DHS), 245 Murray Lane, Mail Stop 0604, Arlington, VA 20598-0615.

Instructions: All submissions received must include the words "Department of Homeland Security" and the docket number for this action. Comments received will be posted without alteration at <http://www.regulations.gov>, including any personal information provided.

Docket: For access to the docket to read background documents or comments received by the NSTAC, go to <http://www.regulations.gov>.

A public comment period will be held during the open portion of the meeting on Wednesday, May 6, 2015, from 2:05 p.m. to 2:25 p.m., and speakers are requested to limit their comments to three minutes. Please note that the public comment period may end before the time indicated, following the last call for comments. Please contact Suzanne Daage at 703-235-5461 to register as a speaker by close of business on May 1, 2015.

FOR FURTHER INFORMATION CONTACT: Helen Jackson, NSTAC Designated Federal Officer, DHS, telephone (703) 235-5321.

SUPPLEMENTARY INFORMATION: Notice of this meeting is given under the Federal Advisory Committee Act, 5 U.S.C. Appendix. (Pub. L. 92-463). The NSTAC advises the President on matters related to national security and emergency preparedness (NS/EP) telecommunications policy.

Agenda: The committee will meet in an open session to hear a keynote address on DHS activities, and engage in a panel with members of the NS/EP Communications Executive Committee to discuss NS/EP communications challenges and mutual priorities. Additionally, members will receive a status update from the DHS regarding the Government's progress in response to recent NSTAC recommendations. The NSTAC members also will receive an update on the status of the Big Data Analytics Subcommittee. The

committee will meet in a closed session to hear a classified briefing regarding cybersecurity threats and discuss future studies based on the Government's national security priorities and perceived vulnerabilities.

Basis for Closure: In accordance with 5 U.S.C. 552b(c), Government in the *Sunshine Act*, it has been determined that two agenda items require closure as the disclosure of the information would not be in the public interest.

The first of these agenda items, the classified briefing, will provide members with context on nation-state capabilities and strategic threats. Such threats target national telecommunications infrastructure and impact industry's long-term competitiveness and growth, as well as the Government's ability to mitigate threats. Disclosure of these threats would provide criminals who wish to intrude into commercial and Government networks with information on potential vulnerabilities and mitigation techniques, weakening existing cybersecurity defense tactics. This briefing will be classified at the top-secret level, thereby exempting disclosure of the content by statute. Therefore, this portion of the meeting will be closed pursuant to 5 U.S.C. 552b(c)(1)(A).

The second agenda item, the discussion of potential NSTAC study topics, will address areas of critical cybersecurity vulnerabilities and priorities for Government. Government officials will share data with NSTAC members on initiatives, assessments, and future security requirements across public and private networks. The data to be shared includes specific vulnerabilities within cyberspace that affect the Nation's telecommunications and information technology infrastructures and proposed mitigation strategies. Disclosure of this information to the public would provide criminals with an incentive to focus on these vulnerabilities to increase attacks on the Nation's cyber and telecommunications networks. Therefore, this portion of the meeting is likely to significantly frustrate implementation of proposed DHS actions and will be closed pursuant to 5 U.S.C. 552b(c)(9)(B).

Dated: April 7, 2015.

Helen Jackson,

Designated Federal Officer for the NSTAC.

[FR Doc. 2015-08818 Filed 4-16-15; 8:45 am]

BILLING CODE 9110-9P-P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR-5828-N-16]

Federal Property Suitable as Facilities to Assist the Homeless

AGENCY: Office of the Assistant Secretary for Community Planning and Development, HUD.

ACTION: Notice.

SUMMARY: This Notice identifies unutilized, underutilized, excess, and surplus Federal property reviewed by HUD for suitability for use to assist the homeless.

FOR FURTHER INFORMATION CONTACT: Juanita Perry, Department of Housing and Urban Development, 451 Seventh Street SW., Room 7266, Washington, DC 20410; telephone (202) 402-3970; TTY number for the hearing- and speech-impaired (202) 708-2565 (these telephone numbers are not toll-free), or call the toll-free Title V information line at 800-927-7588.

SUPPLEMENTARY INFORMATION: In accordance with 24 CFR part 581 and section 501 of the Stewart B. McKinney Homeless Assistance Act (42 U.S.C. 11411), as amended, HUD is publishing this Notice to identify Federal buildings and other real property that HUD has reviewed for suitability for use to assist the homeless. The properties were reviewed using information provided to HUD by Federal landholding agencies regarding unutilized and underutilized buildings and real property controlled by such agencies or by GSA regarding its inventory of excess or surplus Federal property. This Notice is also published in order to comply with the December 12, 1988 Court Order in *National Coalition for the Homeless v. Veterans Administration*, No. 88-2503-OG (D.D.C.).

Properties reviewed are listed in this Notice according to the following categories: Suitable/available, suitable/unavailable, and suitable/to be excess, and unsuitable. The properties listed in the three suitable categories have been reviewed by the landholding agencies, and each agency has transmitted to HUD: (1) Its intention to make the property available for use to assist the homeless, (2) its intention to declare the property excess to the agency's needs, or (3) a statement of the reasons that the property cannot be declared excess or made available for use as facilities to assist the homeless.

Properties listed as suitable/available will be available exclusively for homeless use for a period of 60 days from the date of this Notice. Where

property is described as for "off-site use only" recipients of the property will be required to relocate the building to their own site at their own expense. Homeless assistance providers interested in any such property should send a written expression of interest to HHS, addressed to: Ms. Theresa M. Ritta, Chief Real Property Branch, the Department of Health and Human Services, Room 5B-17, Parklawn Building, 5600 Fishers Lane, Rockville, MD 20857, (301) 443-2265 (This is not a toll-free number.) HHS will mail to the interested provider an application packet, which will include instructions for completing the application. In order to maximize the opportunity to utilize a suitable property, providers should submit their written expressions of interest as soon as possible. For complete details concerning the processing of applications, the reader is encouraged to refer to the interim rule governing this program, 24 CFR part 581.

For properties listed as suitable/to be excess, that property may, if subsequently accepted as excess by GSA, be made available for use by the homeless in accordance with applicable law, subject to screening for other Federal use. At the appropriate time, HUD will publish the property in a Notice showing it as either suitable/available or suitable/unavailable.

For properties listed as suitable/unavailable, the landholding agency has decided that the property cannot be declared excess or made available for use to assist the homeless, and the property will not be available.

Properties listed as unsuitable will not be made available for any other purpose for 20 days from the date of this Notice. Homeless assistance providers interested in a review by HUD of the determination of unsuitability should call the toll free information line at 1-800-927-7588 for detailed instructions or write a letter to Ann Marie Oliva at the address listed at the beginning of this Notice. Included in the request for review should be the property address (including zip code), the date of publication in the **Federal Register**, the landholding agency, and the property number.

For more information regarding particular properties identified in this Notice (*i.e.*, acreage, floor plan, existing sanitary facilities, exact street address), providers should contact the appropriate landholding agencies at the following addresses: *Agriculture:* Ms. Debra Kerr, Department of Agriculture, Reporters Building, 300 7th Street SW., Room 300, Washington, DC 20024, (202)-720-8873; *Navy:* Mr. Steve

Matteo, Department of the Navy, Asset Management Division, Naval Facilities Engineering Command, Washington Navy Yard, 1330 Patterson Ave. SW., Suite 1000, Washington, DC 20374; (202) 685-9426; (These are not toll-free numbers).

Dated: April 8, 2015.

Brian P. Fitzmaurice

Director, Division of Community Assistance, Office of Special Needs Assistance Programs.

TITLE V, FEDERAL SURPLUS PROPERTY PROGRAM FEDERAL REGISTER REPORT FOR 04/17/2015

Suitable/Available Properties

Building

Wyoming

Bridger-Teton Supervisor's Off
340 N. Cache Street
Jackson WY 83001

Landholding Agency: Agriculture
Property Number: 15201520001
Status: Excess

Directions: TN807017, RPUID-B1262.002791
Comments: off-site removal; 69+ yrs. old; 475 sq. ft.; wood; asbestos; garage; poor condition; contact Agriculture for more information.

Unsuitable Properties

Building

California

2 Buildings
Naval Air Weapons Station China Lake
China Lake CA 93555

Landholding Agency: Navy
Property Number: 77201510019
Status: Excess
Directions: (NAWS CL) #01298, #01298SUB
Comments: public access denied & no alternative method to gain access without compromising National Security.
Reasons: Secured Area

Pennsylvania

6 Buildings
Naval Support Activity Mechanicsburg
Mechanicsburg PA 17055

Landholding Agency: Navy
Property Number: 77201510020
Status: Excess

Directions: Buildings 15, 24, 101, 204, 210, 211

Comments: public access denied & no alternative method to gain access without compromising National Security.

Reasons: Secured Area

[FR Doc. 2015-08479 Filed 4-16-15; 8:45 am]

BILLING CODE 4210-67-P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[FWS-HQ-IA-2015-N071;
FXIA1671090000-156-FF09A30000]

Endangered Species; Issuance of Permits

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of issuance of permits.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), have issued the following permits to conduct certain activities with endangered species, marine mammals, or both. We issue these permits under the Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA).

ADDRESSES: Brenda Tapia, U.S. Fish and Wildlife Service, Division of Management Authority, Branch of Permits, MS: IA, 5275 Leesburg Pike, Falls Church, VA 22041; fax (703) 358-2281; or email DMAFR@fws.gov.

FOR FURTHER INFORMATION CONTACT:

Brenda Tapia, (703) 358-2104 (telephone); (703) 358-2281 (fax); DMAFR@fws.gov (email).

SUPPLEMENTARY INFORMATION: On the dates below, as authorized by the provisions of the ESA (16 U.S.C. 1531 *et seq.*), as amended, and/or the MMPA, as amended (16 U.S.C. 1361 *et seq.*), we issued requested permits subject to certain conditions set forth therein. For each permit for an endangered species, we found that (1) The application was filed in good faith, (2) The granted permit would not operate to the disadvantage of the endangered species, and (3) The granted permit would be consistent with the purposes and policy set forth in section 2 of the ESA.

ENDANGERED SPECIES

Permit No.	Applicant	Receipt of application Federal Register notice	Permit issuance date
46538B	Albert Seeno	79 FR 65980; November 6, 2014	January 5, 2015.
47538B	Don Byrne	79 FR 65980; November 6, 2014	January 5, 2015.
49584B	Ryan Ringer	79 FR 68461; November 17, 2014	January 5, 2015.
42412B	Randy Gisvold	79 FR 68461; November 17, 2014	January 5, 2015.
047058	Space Wild Animal Farm, Inc.	79 FR 72007; December 4, 2014	February 11, 2015.
37451A	Mac Embury	79 FR 72007; December 4, 2014	February 11, 2015.
48586B	Honolulu Zoo	79 FR 72007; December 4, 2014	January 15, 2015.
48426B	Lee Friend	79 FR 72007; December 4, 2014	January 16, 2015.
49080B	Larry Johnson	79 FR 72007; December 4, 2014	January 15, 2015.
677660	Toledo Zoo	79 FR 72007; December 4, 2014	January 27, 2015.
49174B	David L. Bahl	77 FR 72007; December 4, 2014	February 3, 2015.
46530B	Frank Giacalone	77 FR 72007; December 4, 2014	February 3, 2015.
37027B	Nicholas Anastasiou	79 FR 76347; December 22, 2014	January 25, 2015.
219951	Texas Tech University, Department of Biological Sciences	79 FR 76347; December 22, 2014	January 25, 2015.
50855B	Smithsonian National Zoological Park	79 FR 76347; December 22, 2014	March 4, 2015.
49932B	Harvey Welch	79 FR 76347; December 22, 2014	January 23, 2015.
50619B	Lynn Hale	79 FR 76347; December 22, 2014	February 3, 2015.
51545B	Henry Jeans	79 FR 76347, December 22, 2014	March 18, 2015.
46366b	Martin Lohne	80 FR 255; January 5, 2015	February 5, 2015.
46122b	Edwin Rymut	80 FR 255; January 5, 2015	February 5, 2015.
47547b	Brent Abshire	80 FR 255; January 5, 2015	February 5, 2015.
54012b	Donald Chumley	80 FR 255; January 5, 2015	February 5, 2015.
53745b	Stanley Williams	80 FR 255; January 5, 2015	February 5, 2015.
54027b	Dennis Jordan	80 FR 255; January 5, 2015	February 5, 2015.
46302b	Maurice Holthaus	80 FR 255; January 5, 2015	February 5, 2015.
54296B	Pueblo Zoo	80 FR 255; January 5, 2015	February 5, 2015.
46358B	Nicholas Sackman	80 FR 3249; January 22, 2015	February 26, 2015.
43489B	Elizabeth Krottinger	80 FR 3249; January 22, 2015	February 26, 2015.
54323B	Tuyrner Butts	80 FR 3249; January 22, 2015	February 26, 2015.
51146B	Austin Nick	80 FR 3249; January 22, 2015	February 26, 2015.
165944	Peter Stein	80 FR 3249; January 22, 2015	February 27, 2015.

ENDANGERED SPECIES—Continued

Permit No.	Applicant	Receipt of application Federal Register notice	Permit issuance date
48446B	William Lehrer	80 FR 3249; January 22, 2015	March 9, 2015.
678171	Caldwell Zoo	80 FR 6536; February 5, 2015	March 26, 2015.
55130B	James DeBlasio	80 FR 6536; February 5, 2015	March 9, 2015.
43192B	Honolulu Zoo	80 FR 6536; February 5, 2015	March 10, 2015.
46740B	Fauna & Flora International, Inc.	80 FR 6536; February 5, 2015	April 3, 2015.
56026B	Janice Simpson	80 FR 6536; February 5, 2015	March 9, 2015.
42334B	Tonya Bryson	80 FR 6536; February 5, 2015	March 19, 2014.
53980B	Albert Seeno	80 FR 6536; February 5, 2015	March 23, 2015.
47211A	Don Do	80 FR 6536; February 5, 2015	April 2, 2015.
48053A	GTWT, LLC, dba Bang 57 Ranch	80 FR 8896; February 19, 2015	March 25, 2015.
56820B	Bernard Richburg	80 FR 8896; February 19, 2015	April 2, 2015.
55925B	Robert Bonar	80 FR 8896; February 19, 2015	April 2, 2015.
49585B	Leo Wright	80 FR 8896; February 19, 2015	April 2, 2015.
45981B	Joan Embery-Pillsbury	80 FR 8896; February 19, 2015	April 7, 2015.

Availability of Documents

Documents and other information submitted with these applications are available for review, subject to the requirements of the Privacy Act and Freedom of Information Act, by any party who submits a written request for a copy of such documents to: U.S. Fish and Wildlife Service, Division of Management Authority, Branch of Permits, MS: IA, 5275 Leesburg Pike, Falls Church, VA 22041; fax (703) 358-2281.

Brenda Tapia,

Program Analyst/Data Administrator, Branch of Permits, Division of Management Authority.

[FR Doc. 2015-08822 Filed 4-16-15; 8:45 am]

BILLING CODE 4310-55-P

DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service**

[FWS-HQ-FAC-2015-N067;
FXFR133609ANS09-FF09F14000-134]

Aquatic Nuisance Species Task Force Meeting

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of meeting.

SUMMARY: We, the U.S. Fish and Wildlife Service, announce a public meeting of the Aquatic Nuisance Species (ANS) Task Force, which consists of 13 Federal and 13 ex-officio members. The ANS Task Force's purpose is to develop and implement a program for U.S. waters to prevent introduction and dispersal of aquatic invasive species (AIS); to monitor, control, and study such species; and to disseminate related information.

DATES: The ANS Task Force will meet from 8 a.m. to 5 p.m. on Wednesday, May 6, and Thursday, May 7, 2015, and

on Friday, May 8, 2015, from 8 a.m. to noon. For more information, contact the ANS Task Force Executive Secretary (see **FOR FURTHER INFORMATION CONTACT**).

ADDRESSES: The ANS Task Force meeting will take place at the Bahia Mar Fort Lauderdale Beach, 801 Seabreeze Boulevard, Fort Lauderdale, Florida 33316, (Telephone: 954-764-2233).

FOR FURTHER INFORMATION CONTACT: Laura Norcutt, Acting Executive Secretary, ANS Task Force, by telephone at (703) 358-2398, or by email at Laura_Norcutt@fws.gov. If you use a telecommunications device for the deaf (TDD), please call the Federal Information Relay Service (FIRS) at 800-877-8339.

SUPPLEMENTARY INFORMATION: In accordance with the requirements of the Federal Advisory Committee Act, 5 U.S.C. App., we announce that the ANS Task Force will hold a meeting.

Background

The ANS Task Force was established by the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (Act) (Pub. L. 106-580, as amended), and is composed of 13 Federal and 13 ex-officio members, and co-chaired by the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration. The ANS Task Force provides advice on AIS infesting waters of the United States and other nations, among other duties as specified in the Act.

Meeting Agenda

- *Quagga-Zebra Mussel Action Plan Update*
- Building Policy Consensus in the West: Update on Development of Model Law and Regulations
- Addressing AIS Transport at Federally Managed Water Bodies
- Fish Passage Need and AIS Threats

- Approval of the *National Invasive Lionfish Prevention and Management Plan* and the *National Snakehead Control and Management Plan*
- ANS Hotline Update
- eDNA Information Clearinghouse Web site
- Organisms in Trade Project and WebCrawler Tool
- Update from the Aquatic Invasive Species Summit: Boat Design and Construction in the Consideration of AIS
- Stop Aquatic Hitchhikers! Update
- Plans for Revitalizing Habitattitude
- ANSTF Involvement with National Invasive Species Awareness Week
- Detection and Management of *Monoecious Hydrilla* in the Erie Canal
- A National EDRR Framework and Emergency Response Funding Plan
- Hydraulic Fracturing for Gas Development as an AIS Pathway

There will be a field trip Wednesday from 1:30 p.m. to 5 p.m. on exotic fish and the South Florida melaleuca control program. To register for the field trip, complete this doodle poll: <http://doodle.com/pdng82up43uranpx>.

The final agenda and other related meeting information will be posted on the ANS Task Force Web site at <http://anstaskforce.gov>.

Meeting Minutes

Summary minutes of the meeting will be maintained by the Executive Secretary (see **FOR FURTHER INFORMATION CONTACT**). The minutes will be available for public inspection within 60 days after the meeting and will be posted on the ANS Task Force Web site at <http://anstaskforce.gov>.

Dated: April 13, 2015.

David W. Hoskins,

Co-Chair, Aquatic Nuisance Species Task Force, Assistant Director for Fish and Aquatic Conservation.

[FR Doc. 2015-08921 Filed 4-16-15; 8:45 am]

BILLING CODE 4310-55-P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[FWS-HQ-R-2015-N073;
FXRS12630900000-156-FF09R81000]

Information Collection Request Sent to the Office of Management and Budget for Approval; Hunting and Fishing Application Forms and Activity Reports for National Wildlife Refuges

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice; request for comments.

SUMMARY: We (U.S. Fish and Wildlife Service) have sent an Information Collection Request (ICR) to the Office of Management and Budget (OMB) for review and approval. We summarize the ICR below and describe the nature of the

collection and the estimated burden and cost. This information collection is scheduled to expire on April 30, 2015. We may not conduct or sponsor and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. However, under OMB regulations, we may continue to conduct or sponsor this information collection while it is pending at OMB.

DATES: You must submit comments on or before May 18, 2015.

ADDRESSES: Send your comments and suggestions on this information collection to the Desk Officer for the Department of the Interior at OMB-OIRA at (202) 395-5806 (fax) or *OIRA_Submission@omb.eop.gov* (email). Please provide a copy of your comments to the Service Information Collection Clearance Officer, U.S. Fish and Wildlife Service, MS BPHC, 5275 Leesburg Pike, Falls Church, VA 22041-3803 (mail), or *hope_grey@fws.gov* (email). Please include "1018-0140" in the subject line of your comments.

FOR FURTHER INFORMATION CONTACT: To request additional information about this ICR, contact Hope Grey at *hope_grey@fws.gov* (email) or 703-358-2482 (telephone). You may review the ICR online at <http://www.reginfo.gov>. Follow the instructions to review Department of the Interior collections under review by OMB.

SUPPLEMENTARY INFORMATION:

Information Collection Request

OMB Control Number: 1018-0140.

Title: Hunting and Fishing Application Forms and Activity Reports for National Wildlife Refuges; 50 CFR 25, 26, 27, 30, 31, and 32.

Service Form Number(s): 3-2354, 3-2355, 3-2356, 3-2357, 3-2358, 3-2359, 3-2360, 3-2361, 3-2362.

Type of Request: Extension of a currently approved collection.

Description of Respondents: Individuals.

Respondent's Obligation: Required to obtain or retain a benefit.

Frequency of Collection: On occasion (for applications, usually once per year at the beginning of the hunting season; for activity reports, once at the conclusion of the hunting/fishing experience).

Activity	Number of respondents	Number of responses	Completion time per response (minutes)	Total annual burden hours
FWS Form 3-2354	169,200	169,200	30	84,600
FWS Form 3-2355	87,400	87,400	30	43,700
FWS Form 3-2356	2,400	2,400	30	1,200
FWS Form 3-2357	4,900	4,900	30	2,450
FWS Form 3-2358	2,400	2,400	30	1,200
FWS Form 3-2359	82,700	82,700	15	20,675
FWS Form 3-2360	387,300	387,300	15	96,825
FWS Form 3-2361	29,100	29,100	15	7,275
FWS Form 3-2362	24,400	24,400	15	6,100
Totals	789,800	789,800	.....	264,025

Estimated Annual Nonhour Burden Cost: We estimate the annual nonhour cost burden to be \$60,000 for hunting application fees at some refuges.

Abstract: The National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended (Administration Act), and the Refuge Recreation Act of 1962 (16 U.S.C. 460k-460k-4) (Recreation Act) govern the administration and uses of national wildlife refuges and wetland management districts. The Administration Act consolidated all the different refuge areas into a single Refuge System. It also authorizes us to permit public uses, including hunting and fishing, on lands of the Refuge System when we find that the activity is compatible and appropriate with the purpose for which the refuge was

established. The Recreation Act allows the use of refuges for public recreation when the use is not inconsistent or does not interfere with the primary purpose(s) of the refuge.

We administer 373 hunting programs and 271 fishing programs on 408 refuges and wetland management districts. We only collect user information at about 20 percent of these refuges. Information that we plan to collect will help us:

- Administer and monitor hunting and fishing programs on refuges.
- Distribute hunting and fishing permits in a fair and equitable manner to eligible participants.

We use nine application and report forms associated with hunting and fishing on refuges. We may not allow all opportunities on all refuges; therefore, we developed different forms to

simplify the process and avoid confusion for applicants. The currently approved forms are available online at <http://www.fws.gov/forms/>. Not all refuges will use each form and some refuges may collect the identical information in a nonform format.

We use the following application forms when we assign areas, dates, and/or types of hunts via a drawing because of limited resources, high demand, or when a permit is needed to hunt. We issue application forms for specific periods, usually seasonally or annually.

- FWS Form 3-2354 (Quota Deer Hunt Application).
- FWS Form 3-2355 (Waterfowl Lottery Application).
- FWS Form 3-2356 (Big/Upland Game Hunt Application).

- FWS Form 3–2357 (Migratory Bird Hunt Application).
- FWS Form 3–2358 (Fishing/Shrimping/Crabbing Application).

We collect information on:

- Applicant (name, address, phone number) so that we can notify applicants of their selection.
- User preferences (dates, areas, method) so that we can distribute users equitably.
- Whether or not the applicant is applying for a special opportunity for disabled or youth hunters.
- Age of youth hunter(s) so that we can establish eligibility.

We ask users to report on their success after their experience so that we can evaluate hunting/fishing quality and resource impacts. We use the following activity reports, which we distribute during appropriate seasons, as determined by State or Federal regulations.

- FWS Form 3–2359 (Big Game Harvest Report).
- FWS Form 3–2360 (Fishing Report).
- FWS Form 3–2361 (Migratory Bird Hunt Report).
- FWS Form 3–2362 (Upland/Small Game/Furbearer Report).

We collect information on:

- Names of users so we can differentiate between responses.
- City and State of residence so that we can better understand if users are local or traveling.
- Dates, time, and number in party so we can identify use trends and allocate staff and resources.
- Details of success by species so that we can evaluate quality of experience and resource impacts.

Comments Received and Our Responses

Comments: On February 2, 2015, we published in the **Federal Register** (80 FR 5572) a notice of our intent to request that OMB renew approval for this information collection. In that notice, we solicited comments for 60 days, ending on April 3, 2015. We received one comment. The commenter opposed the issuance of any hunting permits, but did not address the information collection requirements. We did not make any changes to our requirements.

Request for Public Comments

We again invite comments concerning this information collection on:

- Whether or not the collection of information is necessary, including whether or not the information will have practical utility;
- The accuracy of our estimate of the burden for this collection of information;

- Ways to enhance the quality, utility, and clarity of the information to be collected; and

- Ways to minimize the burden of the collection of information on respondents.

Comments that you submit in response to this notice are a matter of public record. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment, including your personal identifying information, may be made publicly available at any time. While you can ask OMB in your comment to withhold your personal identifying information from public review, we cannot guarantee that it will be done.

Dated: April 13, 2015.

Tina A. Campbell,

Chief, Division of Policy, Performance, and Management Programs, U.S. Fish and Wildlife Service.

[FR Doc. 2015–08808 Filed 4–16–15; 8:45 am]

BILLING CODE 4310–55–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[FWS–HQ–IA–2015–N072;
FXIA1671090000–156–FF09A30000]

Endangered Species; Receipt of Applications for Permit

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of receipt of applications for permit.

SUMMARY: We, the U.S. Fish and Wildlife Service, invite the public to comment on the following applications to conduct certain activities with endangered species. With some exceptions, the Endangered Species Act (ESA) prohibits activities with listed species unless Federal authorization is acquired that allows such activities.

DATES: We must receive comments or requests for documents on or before May 18, 2015.

ADDRESSES: Brenda Tapia, U.S. Fish and Wildlife Service, Division of Management Authority, Branch of Permits, MS: IA, 5275 Leesburg Pike, Falls Church, VA 22041; fax (703) 358–2281; or email DMAFR@fws.gov.

FOR FURTHER INFORMATION CONTACT: Brenda Tapia, (703) 358–2104 (telephone); (703) 358–2281 (fax); DMAFR@fws.gov (email).

SUPPLEMENTARY INFORMATION:

I. Public Comment Procedures

A. How do I request copies of applications or comment on submitted applications?

Send your request for copies of applications or comments and materials concerning any of the applications to the contact listed under **ADDRESSES**. Please include the **Federal Register** notice publication date, the PRT-number, and the name of the applicant in your request or submission. We will not consider requests or comments sent to an email or address not listed under **ADDRESSES**. If you provide an email address in your request for copies of applications, we will attempt to respond to your request electronically.

Please make your requests or comments as specific as possible. Please confine your comments to issues for which we seek comments in this notice, and explain the basis for your comments. Include sufficient information with your comments to allow us to authenticate any scientific or commercial data you include.

The comments and recommendations that will be most useful and likely to influence agency decisions are: (1) Those supported by quantitative information or studies; and (2) Those that include citations to, and analyses of, the applicable laws and regulations. We will not consider or include in our administrative record comments we receive after the close of the comment period (see **DATES**) or comments delivered to an address other than those listed above (see **ADDRESSES**).

B. May I review comments submitted by others?

Comments, including names and street addresses of respondents, will be available for public review at the street address listed under **ADDRESSES**. The public may review documents and other information applicants have sent in support of the application unless our allowing viewing would violate the Privacy Act or Freedom of Information Act. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

II. Background

To help us carry out our conservation responsibilities for affected species, and

in consideration of section 10(a)(1)(A) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*), along with Executive Order 13576, “Delivering an Efficient, Effective, and Accountable Government,” and the President’s Memorandum for the Heads of Executive Departments and Agencies of January 21, 2009—Transparency and Open Government (74 FR 4685; January 26, 2009), which call on all Federal agencies to promote openness and transparency in Government by disclosing information to the public, we invite public comment on these permit applications before final action is taken.

III. Permit Applications

Endangered Species

Applicant: U.S. Fish and Wildlife Service/National Black-footed Ferret Conservation Center, Carr, CO; PRT–800411 and PRT–086867

The applicant requests renewal and amendment of their permits to export, import, and re-import both live captive-born and wild specimens, biological samples, and salvaged material of black-footed ferret (*Mustela nigripes*) to and from Canada and Mexico for completion of identified tasks and objectives mandated under the Black-footed Ferret Recovery Plan. Salvaged materials may include but are not limited to: whole or partial specimens, blood, tissue, hair, and fecal swabs. This notification covers activities to be conducted by the applicant over a 5-year period.

Applicant: Los Angeles Zoo and Botanical Gardens, Los Angeles, CA; PRT–42627B

The applicant requests a permit to import one female Tomistoma (*Tomistoma schlegelii*) held in captivity from Singapore Zoo, Singapore for the purpose of enhancement of the survival of the species.

Multiple Applicants

The following applicants each request a permit to import the sport-hunted trophy of one male bontebok (*Damaliscus pygargus pygargus*) culled from a captive herd maintained under the management program of the Republic of South Africa, for the purpose of enhancement of the survival of the species.

Applicant: Scott Schuster, Fort Worth, TX; PRT–61398B

Applicant: Jared Forbus, Saint Joe, AR; PRT–59497B

Brenda Tapia,

Program Analyst/Data Administrator, Branch of Permits, Division of Management Authority.

[FR Doc. 2015–08821 Filed 4–16–15; 8:45 am]

BILLING CODE 4310–55–P

DEPARTMENT OF THE INTERIOR

U.S. Geological Survey

[GX15RN00FUJA300]

Agency Information Collection Activities: Request for Comments

AGENCY: U.S. Geological Survey (USGS), Interior.

ACTION: Notice of revision of a currently approved information collection, 1028–0048, Did You Feel It? Earthquake Questionnaire.

SUMMARY: We (the U.S. Geological Survey) will ask Office of Management and Budget (OMB) the information collection request (ICR) described below. The revision includes modifications to make it mobile-friendly. To comply with the Paperwork Reduction Act of 1995 (PRA) and as part of our continuing efforts to reduce paperwork and respondent burden, we invite the general public and other Federal agencies to take this opportunity to comment on this ICR. This collection is scheduled to expire on May 31, 2015.

DATES: To ensure that your comments on this ICR are considered, OMB must receive them on or before May 18, 2015.

ADDRESSES: Please submit written comments on this information collection directly to the Office of Management and Budget (OMB), Office of Information and Regulatory Affairs, Attention: Desk Officer for the Department of the Interior, via email: (*OIRA_SUBMISSION@omb.eop.gov*); or by fax (202) 395–5806; and identify your submission with ‘OMB Control Number 1028–0048’. Please also forward a copy of your comments and suggestions on this information collection to the Information Collection Clearance Officer, U.S. Geological Survey, 12201 Sunrise Valley Drive MS 807, Reston, VA 20192 (mail); (703) 648–7195 (fax); or *gs-info_collections@usgs.gov* (email). Please reference ‘OMB Information Collection 1028–0048’ in all correspondence.

FOR FURTHER INFORMATION CONTACT: David Wald, (303) 273–8441, *wald@usgs.gov*. You may also find information about this ICR at *www.reginfo.gov*.

SUPPLEMENTARY INFORMATION:

I. Abstract

The U.S. Geological Survey is required to collect, evaluate, publish and distribute information concerning earthquakes. Respondents have an opportunity to voluntarily supply information concerning the effects of shaking from an earthquake—on themselves, buildings, other man-made structures, and ground effects such as faulting or landslides. Respondents’ observations are interpreted in terms of numbers that measure the strength of shaking, and the resulting numbers are displayed on maps that are viewable from USGS earthquake Web sites. Observations are submitted via the Felt Report questionnaire accessed from the USGS Did You Feel It? Earthquake Questionnaire Web pages, and may be submitted via computer or mobile phone. Respondents are asked to provide information on the location to which the report pertains. The locations may, at the respondent’s option, be given imprecisely (city-name or postal Zip Code) or precisely (street address, geographic coordinates, or current location determined by the user’s mobile phone). Low resolution maps of shaking based on both precise and imprecise observations are published for all earthquakes for which observations are submitted. For earthquakes felt by many respondents, the observations that are associated with more precise locations are used in the preparation of higher resolution maps of earthquake shaking.

We will protect information from respondents considered proprietary under the Freedom of Information Act (5 U.S.C. 552) and implementing regulations (43 CFR part 2), and under regulations at 30 CFR 250.197, “Data and information to be made available to the public or for limited inspection.” Responses are voluntary. No questions of a “sensitive” nature are asked. We will release data collected on these forms only in formats that do not include proprietary information volunteered by respondents.

II. Data

OMB Control Number: 1028–0048.
Form Number: NA.

Title: Did You Feel It? Earthquake Questionnaire.

Type of Request: Revision of a currently approved information collection.

Respondent Obligation: None.

Frequency of Collection: On occasion, after each earthquake.

Description of Respondents: General Public.

Estimated Total Number of Annual Responses: Approximately 300,000 individuals, based on past experience, but strongly dependent on the number of moderate or large earthquakes occurring near population centers, which cannot be known in advance.

Estimated Time per Response: We estimate that it will take 6 minutes per person on average to answer the entire survey.

Estimated Annual Burden Hours: 30,000 hours

Estimated Reporting and Recordkeeping "Non-Hour Cost" Burden: There are no "non-hour cost" burdens associated with this collection of information.

Public Disclosure Statement: The PRA (44 U.S.C. 3501, *et seq.*) provides that an agency may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid OMB control number. Until the OMB approves a collection of information, you are not obliged to respond.

Comments: On February 3, 2015, we published a **Federal Register** notice (80 FR 5776) announcing that we would submit this ICR to OMB for approval and soliciting comments. The comment period closed on April 6, 2015. We received no comments.

III. Request for Comments

We again invite comments concerning this ICR as to: (a) Whether the proposed collection of information is necessary for the agency to perform its duties,

including whether the information is useful; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information; (c) how to enhance the quality, usefulness, and clarity of the information to be collected; and (d) how to minimize the burden on the respondents, including the use of automated collection techniques or other forms of information technology.

Please note that comments submitted in response to this notice are a matter of public record. Before including your personal mailing address, phone number, email address, or other personally identifiable information in your comment, you should be aware that your entire comment, including your personally identifiable information, may be made publicly available at any time. While you can ask the OMB in your comment to withhold your personal identifying information from public review, we cannot guarantee that it will be done.

Linda Pratt,
Geologic Hazards Science Center, Associate Director.

[FR Doc. 2015-08780 Filed 4-16-15; 8:45 am]

BILLING CODE 4311-AM-P

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

[145A2100DD-
AADD001000.AOE501010.999900]

American Indian Education Study Group

AGENCY: Bureau of Indian Affairs, Interior.

ACTION: Additional tribal consultation meeting.

SUMMARY: The Bureau of Indian Education (BIE) published a notice in the **Federal Register** on March 25, 2015 (80 FR 15807), announcing that the American Indian Education Study Group (Study Group) will conduct four consultation meetings with Indian tribes to obtain oral and written comments. This notice announces an additional consultation meeting scheduled for May 1, 2015, making a total of five tribal consultations meetings.

DATES: The BIE will host an additional consultation meeting on Friday, May 1, 2015. We will consider all comments received by May 15, 2015, 5:00 p.m., Eastern Standard Time.

ADDRESSES: Submit comments by mail or hand-deliver written comments to Ms. Jacquelyn Cheek, Special Assistant to the Director, Bureau of Indian Education, 1849 C Street NW., Mailstop 4657-MIB, Washington, DC 20240; facsimile: (202) 208-3312; or email to: IAEDTC-CMTS@bia.gov.

FOR FURTHER INFORMATION CONTACT: Ms. Jacquelyn Cheek, Special Assistant to the Director, Bureau of Indian Education, telephone: (202) 208-6983.

SUPPLEMENTARY INFORMATION: The additional tribal consultation meeting on the BIE Restructuring will be held on the following date and location:

Date	Time	Location
Friday, May 1, 2015	8:00 a.m.-5:00 p.m. (Central Standard Time)	Renaissance Oklahoma City, Convention Center Hotel, 10 North Broadway Avenue, Oklahoma City, OK 73102.

Information for this set of consultations is available on the BIE Web site at <http://www.bie.edu/Consultations>.

As required by 25 U.S.C. 2011(b), the purpose of consultation is to provide Indian tribes, school boards, parents, Indian organizations, and other interested parties with an opportunity to comment on the implementation plan developed following the submittal of the American Indian Study Group's Blueprint for Reform and Secretarial Order 3334. The consultation will cover issues raised during previous consultation meetings and those issues currently being considered by BIE on Indian education programs.

Dated: April 13, 2015.
Kevin K. Washburn,
Assistant Secretary—Indian Affairs.
[FR Doc. 2015-08851 Filed 4-16-15; 8:45 am]
BILLING CODE 4337-15-P

DEPARTMENT OF THE INTERIOR

Bureau of Reclamation

[RR04073000, XXXR4081X3, RX.05940913.7000000]

Glen Canyon Dam Adaptive Management Work Group

AGENCY: Bureau of Reclamation, Interior.

ACTION: Notice of public meeting.

SUMMARY: The Glen Canyon Dam Adaptive Management Work Group (AMWG) makes recommendations to the Secretary of the Interior concerning

Glen Canyon Dam operations and other management actions to protect resources downstream of Glen Canyon Dam, consistent with the Grand Canyon Protection Act. The AMWG meets two to three times a year.

DATES: The May 28, 2014, AMWG WebEx/conference call will begin at 12 p.m. (EDT), 10 a.m. (MDT), and 9 a.m. (PDT) and conclude three (3) hours later in the respective time zones. See call-in information in the **SUPPLEMENTARY INFORMATION** section.

FOR FURTHER INFORMATION CONTACT: Glen Knowles, Bureau of Reclamation, telephone (801) 524-3781; facsimile (801) 524-3807; email at gknowles@usbr.gov.

SUPPLEMENTARY INFORMATION: The Glen Canyon Dam Adaptive Management Program (AMP) was implemented as a result of the Record of Decision on the Operation of Glen Canyon Dam Final Environmental Impact Statement to comply with consultation requirements of the Grand Canyon Protection Act (Pub. L. 102-575) of 1992. The AMP includes a Federal advisory committee, the AMWG, a technical work group, a Grand Canyon Monitoring and Research Center, and independent review panels. The technical work group is a subcommittee of the AMWG and provides technical advice and recommendations to the AMWG.

Agenda: The primary purpose of the conference call will be for the AMWG to discuss the Glen Canyon Dam Adaptive Management Budget for Fiscal Year 2016 and the 2016 hydrograph. There will also be updates on renewal of the AMWG Charter and the Long-Term Experimental and Management Plan Environmental Impact Statement. To participate in the WebEx/conference call, please use the following instructions:

1. Go to: <https://ucbor-events.webex.com/ucbor-events/onstage/g.php?MTID=e03f40495743cbb6a8a121702b6d02606>.

2. If requested, enter your name and email address.

3. If a password is required, enter the meeting password: AMWG.

4. Click "Join Now".

Audio Conference Information

- Phone Number: (877) 913-4721.
- Passcode: 3330168.
- Event Number: 991 594 863.

There will be limited ports available, so if you wish to participate, please contact Linda Whetton at (801) 524-3880 to register.

To view a copy of the agenda and documents related to the above meeting,

please visit Reclamation's Web site at: <http://www.usbr.gov/uc/rm/amp/amwg/mtgs/15may28/index.html>. Time will be allowed for any individual or organization wishing to make formal oral comments on the call. To allow for full consideration of information by the AMWG members, written notice must be provided to Glen Knowles, Bureau of Reclamation, Upper Colorado Regional Office, 125 South State Street, Room 8100, Salt Lake City, Utah 84138; telephone (801) 524-3781; facsimile (801) 524-3807; email at gknowles@usbr.gov at least five (5) days prior to the call. Any written comments received will be provided to the AMWG members.

Public Disclosure of Comments

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Dated: March 30, 2015.

Glen Knowles,

Chief, Adaptive Management Group,
Environmental Resources Division, Upper
Colorado Regional Office, Salt Lake City,
Utah.

[FR Doc. 2015-08862 Filed 4-16-15; 8:45 am]

BILLING CODE 4332-90-P

DEPARTMENT OF THE INTERIOR

Bureau of Reclamation

[RR04073000, XXXR4081X3,
RX.05940913.7000000]

Glen Canyon Dam Adaptive Management Work Group Meeting

AGENCY: Bureau of Reclamation,
Interior.

ACTION: Notice of public meeting.

SUMMARY: The Glen Canyon Dam Adaptive Management Work Group (AMWG) makes recommendations to the Secretary of the Interior concerning Glen Canyon Dam operations and other management actions to protect resources downstream of Glen Canyon Dam, consistent with the Grand Canyon Protection Act. The AMWG meets two to three times a year.

DATES: The May 28, 2014, AMWG WebEx/conference call will begin at 12:00 p.m. (EDT), 10:00 a.m. (MDT), and 9:00 a.m. (PDT) and conclude three (3)

hours later in the respective time zones. See call-in information in the **SUPPLEMENTARY INFORMATION** section.

FOR FURTHER INFORMATION CONTACT: Glen Knowles, Bureau of Reclamation, telephone (801) 524-3781; facsimile (801) 524-3807; email at gknowles@usbr.gov.

SUPPLEMENTARY INFORMATION: The Glen Canyon Dam Adaptive Management Program (AMP) was implemented as a result of the Record of Decision on the Operation of Glen Canyon Dam Final Environmental Impact Statement to comply with consultation requirements of the Grand Canyon Protection Act (Pub. L. 102-575) of 1992. The AMP includes a Federal advisory committee, the AMWG, a technical work group, a Grand Canyon Monitoring and Research Center, and independent review panels. The technical work group is a subcommittee of the AMWG and provides technical advice and recommendations to the AMWG.

Agenda: The primary purpose of the conference call will be for the AMWG to discuss the Glen Canyon Dam Adaptive Management Budget for Fiscal Year 2016 and the 2016 hydrograph. There will also be updates on renewal of the AMWG Charter and the Long-Term Experimental and Management Plan Environmental Impact Statement. To participate in the WebEx/conference call, please use the following instructions:

1. Go to: <https://ucbor-events.webex.com/ucbor-events/onstage/g.php?MTID=e03f40495743cbb6a8a121702b6d02606>.

2. If requested, enter your name and email address.

3. If a password is required, enter the meeting password: AMWG.

4. Click "Join Now".

Audio Conference Information

- Phone Number: (877) 913-4721
- Passcode: 3330168
- Event Number: 991 594 863

There will be limited ports available, so if you wish to participate, please contact Linda Whetton at (801) 524-3880 to register.

To view a copy of the agenda and documents related to the above meeting, please visit Reclamation's Web site at: <http://www.usbr.gov/uc/rm/amp/amwg/mtgs/15may28/index.html>. Time will be allowed for any individual or organization wishing to make formal oral comments on the call. To allow for full consideration of information by the AMWG members, written notice must be provided to Glen Knowles, Bureau of Reclamation, Upper Colorado Regional Office, 125 South State Street, Room

8100, Salt Lake City, Utah 84138; telephone (801) 524-3781; facsimile (801) 524-3807; email at gknowles@usbr.gov at least five (5) days prior to the call. Any written comments received will be provided to the AMWG members.

Public Disclosure of Comments

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Dated: March 30, 2015.

Glen Knowles,

Chief, Adaptive Management Group, Environmental Resources Division, Upper Colorado Regional Office, Salt Lake City, Utah.

[FR Doc. 2015-08923 Filed 4-16-15; 8:45 am]

BILLING CODE 4332-90-P

INTERNATIONAL TRADE COMMISSION

[Investigation Nos. 701-TA-459 and 731-TA-1155 (Review)]

Commodity Matchbooks From India; Determinations

On the basis of the record¹ developed in the subject five-year reviews, the United States International Trade Commission (“Commission”) determines, pursuant to section 751(c) of the Tariff Act of 1930 (19 U.S.C. 1675(c)), that revocation of the countervailing duty order and antidumping duty order on commodity matchbooks from India would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.

Background

The Commission instituted these reviews on November 3, 2014 (79 FR 65186) and determined on February 6, 2015 that it would conduct expedited reviews (80 FR 9480, February 23, 2015).

The Commission completed and filed its determinations in these reviews on April 6, 2015. The views of the Commission are contained in USITC

¹ The record is defined in § 207.2(f) of the Commission’s Rules of Practice and Procedure (19 CFR 207.2(f)).

Publication 4525 (April 2015), entitled *Commodity Matchbooks from India: Investigation Nos. 701-TA-459 and 731-TA-1155 (Review)*.

By order of the Commission.
Issued: April 2, 2015.

Lisa R. Barton,

Secretary to the Commission.

[FR Doc. 2015-08826 Filed 4-16-15; 8:45 am]

BILLING CODE 7020-02-P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 701-TA-530 (Preliminary)]

Supercalendered Paper From Canada; Determination

Determination

On the basis of the record¹ developed in the subject investigation, the United States International Trade Commission (“Commission”) determines, pursuant to the Tariff Act of 1930 (“the Act”), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of supercalendered paper, provided for in subheading 4802.61.30 of the Harmonized Tariff Schedule of the United States, that are alleged to be subsidized by the government of Canada.²

Commencement of Final Phase Investigation

Pursuant to section 207.18 of the Commission’s rules, the Commission also gives notice of the commencement of the final phase of its investigation. The Commission will issue a final phase notice of scheduling, which will be published in the **Federal Register** as provided in section 207.21 of the Commission’s rules, upon notice from the Department of Commerce (“Commerce”) of an affirmative preliminary determination in the investigation under section 703(b) of the Act, or, if the preliminary determination is negative, upon notice of an affirmative final determination in that investigation under section 705(a) of the Act. Parties that filed entries of appearance in the preliminary phase of the investigation need not enter a separate appearance for the final phase of the investigation. Industrial users, and, if the merchandise under investigation is sold at the retail level, representative consumer organizations

¹ The record is defined in sec. 207.2(f) of the Commission’s Rules of Practice and Procedure (19 CFR 207.2(f)).

² Commissioner F. Scott Kieff did not participate in this investigation.

have the right to appear as parties in Commission antidumping and countervailing duty investigations. The Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to the investigation.

Background

On February 26, 2015, the Coalition for Fair Paper Imports, which is an ad hoc association of U.S. producers that includes Madison Paper Industries, Inc., Madison, ME and Verso Corp., Memphis, TN, filed a petition with the Commission and Commerce, alleging that an industry in the United States is materially injured or threatened with material injury by reason of subsidized imports of supercalendered paper from Canada. Accordingly, effective February 26, 2015, the Commission, pursuant to section 703(a) of the Tariff Act of 1930 (19 U.S.C. 1671b(a)), instituted countervailing duty investigation No. 701-TA-530 (Preliminary).

Notice of the institution of the Commission’s investigation and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the **Federal Register** of March 5, 2015 (80 FR 12036). The conference was held in Washington, DC, on March 19, 2015, and all persons who requested the opportunity were permitted to appear in person or by counsel.

The Commission made this determination pursuant to section 703(a) of the Tariff Act of 1930 (19 U.S.C. 1671b(a)). It completed and filed its determination in this investigation on April 14, 2015. The views of the Commission are contained in USITC Publication 4529 (April 2015), entitled *Supercalendered Paper from Canada: Investigation No. 701-TA-530 (Preliminary)*.

By order of the Commission.

Dated: April 14, 2015.

Lisa R. Barton,

Secretary to the Commission.

[FR Doc. 2015-08882 Filed 4-16-15; 8:45 am]

BILLING CODE 7020-02-P

DEPARTMENT OF JUSTICE

Federal Bureau of Investigation

Meeting of the CJIS Advisory Policy Board

AGENCY: Federal Bureau of Investigation (FBI), Department of Justice.

ACTION: Meeting notice.

SUMMARY: The purpose of this notice is to announce the meeting of the Federal Bureau of Investigation's Criminal Justice Information Services (CJIS) Advisory Policy Board (APB). The CJIS APB is a federal advisory committee established pursuant to the Federal Advisory Committee Act (FACA). This meeting announcement is being published as required by section 10 of the FACA.

The FBI CJIS APB is responsible for reviewing policy issues and appropriate technical and operational issues related to the programs administered by the FBI's CJIS Division, and thereafter, making appropriate recommendations to the FBI Director. The programs administered by the CJIS Division are the Integrated Automated Fingerprint Identification System/Next Generation Identification, Interstate Identification Index, Law Enforcement Enterprise Portal, National Crime Information Center, National Instant Criminal Background Check System, National Incident-Based Reporting System, National Data Exchange, and Uniform Crime Reporting.

This meeting is open to the public. All attendees will be required to check-in at the meeting registration desk. Registrations will be accepted on a space available basis. Interested persons whose registrations have been accepted may be permitted to participate in the discussions at the discretion of the meeting chairman and with approval of the Designated Federal Officer (DFO). Any member of the public may file a written statement with the Board. Written comments shall be focused on the APB's current issues under discussion and may not be repetitive of previously submitted written statements. Written comments should be provided to Mr. R. Scott Trent, DFO, at least seven (7) days in advance of the meeting so that the comments may be made available to the APB for their consideration prior to the meeting.

Anyone requiring special accommodations should notify Mr. Trent at least seven (7) days in advance of the meeting.

DATES: *Dates and Times:* The APB will meet in open session from 8:30 a.m. until 5 p.m., on June 3–4, 2015.

ADDRESSES: The meeting will take place at The Hyatt Regency Orange County, 11999 Harbor Boulevard, Garden Grove, California 92840, telephone (714) 750–1234.

FOR FURTHER INFORMATION CONTACT: Inquiries may be addressed to Ms. Kimberly S. Parsons; Management and

Program Analyst; CJIS Training and Advisory Process Unit, Resources Management Section; FBI CJIS Division, Module C2, 1000 Custer Hollow Road, Clarksburg, West Virginia 26306–0149; telephone (304) 625–2404, facsimile (304) 625–5090.

Dated: April 13, 2015.

R. Scott Trent,

CJIS Designated Federal Officer, Criminal Justice Information, Services Division, Federal Bureau of Investigation.

[FR Doc. 2015–08919 Filed 4–16–15; 8:45 am]

BILLING CODE 4410–02–P

DEPARTMENT OF JUSTICE

Notice of Lodging of Proposed Consent Decree Under the Comprehensive Environmental Response, Compensation, and Liability Act

On April 10, 2015, the Department of Justice lodged a proposed Consent Decree with the United States District Court for the District of Rhode Island in the consolidated lawsuit entitled *Emhart Industries, Inc. v. New England Container Co., Inc.*, Civil Action No. 06–218–S.

The Consent Decree resolves claims alleged by the United States on behalf of the United States Environmental Protection Agency (“EPA”) against New England Container Co., Inc. (“NECC”) pursuant to section 107 and 113 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (“CERCLA”), 42 U.S.C. 9607. The United States’ cross claim seeks reimbursement and contribution of response costs incurred and to be incurred for response actions taken and to be taken at or in connection with the release or threatened release of hazardous substances at the Centredale Manor Restoration Project Superfund Site in North Providence, Rhode Island (“Site”).

Under the proposed Consent Decree, NECC, a former operator of the Site, will pay \$8.75 million in partial reimbursement of EPA’s past response costs. This amount was determined based on an analysis of NECC’s ability to pay, and is being funded by proceeds from certain historic insurance policies.

The publication of this notice opens a period for public comment on the proposed Consent Decree. Comments should be addressed to the Assistant Attorney General, Environment and Natural Resources Division, and should refer to *Emhart Industries, Inc. v. New England Container Co., Inc.*, D.J. Ref. No. 90–11–3–07101/2. All comments

must be submitted no later than thirty (30) days after the publication date of this notice. Comments may be submitted either by email or by mail:

<i>To submit comments:</i>	<i>Send them to:</i>
By email	<i>pubcomment-ees.enrd@usdoj.gov.</i>
By mail	Assistant Attorney General, U.S. DOJ—ENRD, P.O. Box 7611, Washington, DC 20044–7611.

During the public comment period, the proposed Consent Decree may also be examined and downloaded at this Justice Department Web site: <http://www.usdoj.gov/enrd/ConsentDecrees.html>. We will provide a paper copy of the proposed Consent Decree upon written request and payment of reproduction costs. Please mail your request and payment to: Consent Decree Library, U.S. DOJ—ENRD, P.O. Box 7611, Washington, DC 20044–7611.

Please enclose a check or money order for \$5.75 (25 cents per page reproduction cost) payable to the United States Treasury. For a paper copy without the exhibits and signature pages, the cost is \$4.00.

Maureen Katz,

Assistant Section Chief, Environmental Enforcement Section, Environment and Natural Resources Division.

[FR Doc. 2015–08844 Filed 4–16–15; 8:45 am]

BILLING CODE 4410–15–P

LEGAL SERVICES CORPORATION

Notice of Proposed Revisions for the LSC Grant Assurances for Calendar Year 2016 Funding

AGENCY: Legal Services Corporation.

ACTION: Notice of proposed changes and request for comments.

SUMMARY: The Legal Services Corporation (“LSC”) intends to revise the LSC Grant Assurances for calendar year 2016 funding and is soliciting public comment on the proposed changes. The proposed revisions affect Grant Assurances 2, 14, 16, and 17. In addition, LSC is proposing one new Grant Assurance, which requires LSC recipients to have a whistleblower protection policy and a conflicts of interest policy. The proposed LSC grant assurances for calendar year 2016 funding, in redline format indicating the proposed changes to the current “LSC 2015 Grant Assurances,” are available at <http://grants.lsc.gov/sites/default/files/Grants/ReferenceMaterials/2016-GrantAssurances-Proposed.pdf>.

DATES: All comments and recommendations must be received on or before the close of business on May 18, 2015.

ADDRESSES: You may submit comments by any of the following methods:

- *Agency Web site:* <http://www.lsc.gov/contact-us>. Follow the instructions for submitting comments on the Web site.

- *Email:* LSCGrantAssurances@lsc.gov.

- *Fax:* (202) 337-6813.

- *Mail:* Legal Services Corporation, 3333 K Street NW., Washington, DC 20007.

Instructions: All comments should be addressed to Reginald J. Haley, Office of Program Performance, Legal Services Corporation. Include “2016 LSC Grant Assurances” as the heading or subject line for all comments submitted.

FOR FURTHER INFORMATION CONTACT: Reginald J. Haley, haleyjr@lsc.gov, (202) 295-1545.

SUPPLEMENTARY INFORMATION: The purpose of the LSC grant assurances is to delineate the rights and responsibilities of LSC and the recipient pursuant to the provisions of the grant. As a grant-making agency created by Congress, LSC has grant assurances that are intended to reiterate and/or clarify the responsibilities and obligations already applicable through existing law and regulations and/or obligate the recipient to comply with specific additional requirements in order to effectuate the purposes of the Legal Services Corporation Act, as amended, and other applicable law. A summary of the proposed changes follows.

Grant Assurance-2 notifies LSC recipients that they are subject to all provisions of Federal law relating to the proper use of Federal funds; of recipients' responsibility to inform their employees and board members of the laws governing Federal funding; and of the consequences of violating the laws as required by 45 CFR part 1640. The proposed change refers recipients to a list of Federal laws related to the proper use of Federal funds, and notifies recipients that a violation of any of the Federal laws listed could result in summary termination of the LSC grant. LSC proposes this change to conform the 2016 Grant Assurances with the revisions to 45 CFR part 1640, which will become effective on or around May 18, 2015.

Grant Assurance-13 is new. It requires LSC recipients to: (a) Have a whistleblower policy and a conflicts of interest policy, (b) distribute these policies to all parties who may be affected by them, (c) provide training on

these policies to staff and board members, and (d) document its distribution of and training on the policies. The purpose of the proposed grant assurance is to promote program governance and oversight.

Grant Assurance-14 prohibits recipients from taking or threatening to take disciplinary action against any person for cooperating with, or the appropriate release of information to LSC. It also requires grantees to notify its staff and volunteers that it will not take retaliatory actions for any appropriate cooperation with LSC or other entity authorized to receive such cooperation. The proposed change makes a stronger anti-retaliation statement. It notifies recipients that retaliatory action is prohibited for good faith cooperation with LSC or other authorized entity.

Grant Assurance-16 requires LSC recipients to notify LSC of any crime, fraud, misappropriation, embezzlement, or theft or loss of \$200 or more or theft involving property regardless of whether the funds or property are recovered; when local, state, or Federal law enforcement officials are contacted by the program about a crime; or when it has been the victim of a theft that could lead to a loss of \$200 or more. The proposed change to the grant assurance further clarifies that recipients must notify the OIG within two business days about an actual, perceived, or reported crime.

Grant Assurance-17 requires recipients to notify LSC when the recipient receives any notice of a claim for attorney's fees from the recipient; any monetary judgment, sanction, and any penalty entered against the recipient; a force majeure event; or if any of the recipient's key officials is charged with fraud, misappropriation, embezzlement, theft, or any similar offense, or is subjected to suspension, loss of license, or other disciplinary action by a bar or other professional licensing organization. The proposed change to the grant assurance specifies that in addition to recipient's key officials, employees with fiscal responsibilities who are charged with a similar offense, or are subjected to suspension, loss of license, or other disciplinary action must also be reported to LSC, and that recipients are to notify LSC of an occurrence within 10 days.

Dated: April 14, 2015.

Stefanie K. Davis,

Assistant General Counsel.

[FR Doc. 2015-08853 Filed 4-16-15; 8:45 am]

BILLING CODE 7050-01-P

MARINE MAMMAL COMMISSION

Sunshine Act Notice

TIME AND DATE: The Marine Mammal Commission and its Committee of Scientific Advisors on Marine Mammals will meet on Tuesday, 5 May 2015, from 1:00 p.m. to 6:00 p.m.; Wednesday, 6 May 2015, from 8:30 a.m. to 6:00 p.m.; and Thursday, 7 May 2015, from 8:30 a.m. to 6:00 p.m. The Commission and the Committee also will meet in executive session on Tuesday, 5 May 2015, from 8:30 a.m. to 12 p.m.

PLACE: Francis Marion Hotel, 387 King Street, Charleston, South Carolina.

STATUS: The executive session will be closed to the public in accordance with the provisions of the Government in the Sunshine Act (5 U.S.C. 552b) and applicable regulations. The session will be limited to discussions of internal agency practices, personnel, and the budget of the Commission. All other portions of the meeting will be open to the public. Public participation will be allowed as time permits and as determined to be desirable by the Chairman.

MATTERS TO BE CONSIDERED: The Commission and Committee will meet in public session to discuss a broad range of marine mammal science and policy issues related to growing challenges in conserving healthy marine mammal populations and the ecosystems in which they live, with a particular focus on issues related to the Atlantic Coast. An opening roundtable discussion will focus on major marine conservation issues in the Southeast, particularly those off the coast of South Carolina. Six themed sessions will reflect the Objectives in the Commission's Strategic Plan for 2015-19, available at http://www.mmc.gov/reports/strategic_plans/welcome.shtml. These sessions will examine issues related to (1) marine mammal health in the Southeast; (2) North Atlantic right whales; (3) offshore energy; (4) Florida manatees; (5) human interactions with marine mammals; and (6) fisheries bycatch of marine mammals. In addition, the National Marine Fisheries Service's Office of Protected Resources will discuss its strategic plan. A draft meeting agenda is available on the Commission's Web site, <http://www.mmc.gov/index.shtml>.

CONTACT PERSON FOR MORE INFORMATION:

Michael L. Gosliner, General Counsel, Marine Mammal Commission, 4340 East-West Highway, Room 700, Bethesda, MD 20814; (301) 504-0087; email: mgosliner@mmc.gov.

Dated: April 13, 2015.

Rebecca J. Lent,

Executive Director.

[FR Doc. 2015-08771 Filed 4-15-15; 4:15 pm]

BILLING CODE 6820-31-P

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

Nixon Presidential Historical Materials: Opening of Materials

AGENCY: National Archives and Records Administration (NARA).

ACTION: Notice of opening of additional Presidential materials.

SUMMARY: The National Archives and Records Administration's (NARA) Richard Nixon Presidential Library and Museum is opening additional Nixon Presidential Historical Materials for public access. These materials include previously restricted materials and select White House Central Files, Name Files. In accordance with section 104 of Title I of the Presidential Recordings and Materials Preservation Act (PRMPA, 44 U.S.C. 2111 note) and § 1275.42(b) of the regulations implementing the Act (36 CFR part 1275), NARA has identified, inventoried, and prepared for public access these additional textual materials with certain information redacted as required by law, including the PRMPA.

DATES: The materials described in this notice will be available to the public on Wednesday, May 20, 2015, beginning at 9:30 a.m. PDT (12:30 p.m. EDT).

In accordance with 36 CFR 1275.44, any person who believes it necessary to file a claim of legal right or privilege concerning access to these materials must notify the Archivist of the United States in writing of the claimed right, privilege, or defense by May 18, 2015.

ADDRESSES: The materials will be available for viewing at the Richard Nixon Presidential Library and Museum; 18001 Yorba Linda Blvd.; Yorba Linda, CA. Selections from these materials will also be available online at www.nixonlibrary.gov.

You must send any petition asserting a legal or constitutional right or privilege that would prevent or limit public access to the materials to The Archivist of the United States; National Archives at College Park; 8601 Adelphi Rd.; College Park, Maryland 20740-6001.

FOR FURTHER INFORMATION CONTACT: Gregory Cumming, Richard Nixon Presidential Library and Museum, by telephone at 714-983-9131.

SUPPLEMENTARY INFORMATION:

Researchers must have a NARA researcher card to view the materials; you may obtain a card when you arrive at the Library.

Description of Materials

The following materials will be made available in accordance with this notice:

1. Previously restricted textual materials. Volume: 2 cubic feet. A number of textual materials previously withheld from public access have been reviewed for release or declassified under the systematic declassification review provisions and under the mandatory review provisions of Executive Order 13526, the Freedom of Information Act (5 U.S.C. 552), or in accordance with 36 CFR 1275.56 (Public Access regulations). The materials are from integral file segments for the National Security Council (NSC Files and NSC Institutional Files); along with Henry A. Kissinger (HAK) Office Files; Kissinger Telephone Conversation Transcripts; the White House Special Files; and White House Central Files.

2. White House Central Files, Name Files: Volume: 4.5 cubic feet. The Name Files were used for routine materials filed alphabetically by the name of the correspondent; copies of documents in the Name Files were usually filed by subject in the Subject Files.

Brook
Brown, Robert H-K
Brown, William H-K
Bryant, We
Bush, G
Bush, George (Cong.)
Gov. Jimmy Carter
Hon. Fletcher, Arthur (Art)
Ford, Gerald
Ford, Gerald (Cong.)
Goldwater, Barry (Cong.)
Goldwater, Barry (Sen.)
Hoover, J. Edgar
Humphrey, Hubert
Kerne
Linkletter, Art
Luce, Clare Booth
Marriott, J. Willard (Bill)
McGovern, George S. (Sen)
McHugh, A-E
Meade, R.
Meany, George (Hon)
Murphy, Mr. Audie
Nesse
Orm
Patman, Wright (Cong.)
Payton, Q-T
Pelles
Peric
Proxmire, William (Sen.)
Wayne, John (Duke)

Dated: April 10, 2015.

David S. Ferriero,

Archivist of the United States.

[FR Doc. 2015-08850 Filed 4-16-15; 8:45 am]

BILLING CODE 7515-01-P

NUCLEAR REGULATORY COMMISSION

[NRC-2012-0054; Docket No. 70-0036]

Westinghouse Electric Company, LLC; Hematite Decommissioning Project; Festus, Missouri

AGENCY: Nuclear Regulatory Commission.

ACTION: Environmental assessment and finding of no significant impact; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of a license amendment to special nuclear material (SNM) license number SNM-33 issued to Westinghouse Electric Company, LLC for the former Hematite fuel cycle facility in Festus, Missouri, authorizing alternative disposal of buried debris and contaminated soil, concrete and asphalt, filter media, ion exchange resin and piping at the US Ecology Idaho, Inc. (USEI) disposal facility located near Grand View, Idaho. In addition, the NRC is considering the issuance of an exemption to USEI so that it may accept the waste for disposal. This exemption would allow USEI to accept the NRC regulated material under its Idaho Department of Environmental Quality issued license. The NRC staff is issuing an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) associated with the proposed action.

DATES: The EA and FONSI referenced in this document are available on April 17, 2015.

ADDRESSES: Please refer to Docket ID NRC-2012-0054 when contacting the NRC about the availability of information regarding this document. You may access publicly-available information related to this action by the following methods:

- *Federal Rulemaking Web site:* Go to <http://www.regulations.gov> and search for Docket ID NRC-2012-0054. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; email: Carol.Gallagher@nrc.gov. For technical questions, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- *NRC's Agencywide Documents Access and Management System*

(ADAMS): You may access publicly available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "ADAMS Public Documents" and then select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by email to pdr.resource@nrc.gov. The ADAMS accession number for each document referenced in this document (if that document is available in ADAMS) is provided the first time that a document is referenced.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

FOR FURTHER INFORMATION CONTACT: John J. Hayes, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-5928; email: John.Hayes@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

The NRC is considering the issuance of an amendment to license SNM-33, issued to Westinghouse Electric Company, LLC (WEC), for the operation of the Hematite facility, located in Festus, Missouri for the disposal of radioactive waste at the USEI facility located near Grand View, Idaho. As part of this action, the NRC is also considering the approval of an exemption that will allow USEI to accept the waste. As required by section 51.21 of title 10 of the *Code of Federal Regulations* (10 CFR), the NRC has prepared an environmental assessment (EA). Based upon this EA, the NRC has determined not to prepare an environmental impact statement for the proposed license amendment and is issuing a finding of no significant impact (FONSI).

By letter dated July 11, 2014 (ADAMS Accession No. ML14193A008), WEC requested NRC authorization under 10 CFR 20.2002 for alternate disposal of an additional 87,100 m³ (cubic meters) of radioactive waste from the WEC's Hematite facility, consisting of buried debris and contaminated soil, concrete and asphalt, filter media, ion exchange resin and piping containing NRC-licensed source, byproduct, and special nuclear material. The amendment requests authorization for WEC to transfer this waste from the Hematite facility to the USEI facility located near Grand View, Idaho, which is a Resource

Conservation and Recovery Act (RCRA) Subtitle C disposal facility. On August 12, 2014 USEI also submitted a request for an exemption from 10 CFR 30.3 and 10 CFR 70.3 (ADAMS Accession No. ML14272A425) to enable it to receive the WEC radioactive waste from the Hematite site. The USEI facility is regulated by the Idaho Department of Environmental Quality (IDEQ) and is not an NRC-licensed facility.

An NRC administrative review, documented in a letter to WEC dated August 29, 2014 (ADAMS Accession No. ML14188B647), found the application acceptable to begin a technical review. On September 25, 2014, Westinghouse submitted a revision (ADAMS Accession No. ML14293A614) to their July 11, 2014, request. On October 29, 2014, the NRC transmitted to WEC a Request for Additional Information (ADAMS Accession Nos. ML14294A141 and ML14294A146). On December 19, 2014, WEC provided a response to NRC's request (ADAMS Accession No. ML15009A166). Additional information was provided by WEC in submittals dated February 18, 2015, and March 25, 2015 (ADAMS Accession Nos. ML15063A033 and ML15084A071).

On December 3, 2014, the NRC published in the **Federal Register** (79 FR 71795), a Notice of Opportunity for Hearing on the July 11, 2014, WEC license amendment request. No request for a hearing was received within the request period. The NRC relied upon the information provided in the July 11, 2014, license amendment request, the September 25, 2014, December 19, 2014, February 18, 2015, and March 25, 2015, submittals, supporting documentation and other sources as noted in the EA references section, in preparing the EA. The EA is electronically available to the public through ADAMS (ADAMS Accession No. ML15029A064). This notice provides an EA summary and the FONSI.

II. Environmental Assessment Summary

Description of the Proposed Action

The proposed action would authorize WEC to transfer an additional 87,100 m³ of radioactive waste consisting of buried debris and contaminated soil, concrete and asphalt, filter media, ion exchange resin and piping containing NRC-licensed source, byproduct, and special nuclear material from the Hematite facility to the USEI disposal facility located near Grand View, Idaho. The proposed action is in accordance with the licensee's application dated July 11, 2014, as supplemented by letters dated September 25, 2014, December 19, 2014,

February 18, 2015, and March 25, 2015. In order to implement the proposed action, the NRC would need to amend WEC's license, SNM-33, to expressly allow for the disposal of the radioactive waste and would need to grant exemptions to USEI from NRC regulations 10 CFR 30.3 and 10 CFR 70.3.¹

Need for the Proposed Action

The WEC Hematite Decommissioning Project (HDP) is a decommissioning² and environmental restoration project that will generate low-activity, low-level radioactive waste (LLRW) in the form of buried debris and contaminated soil, concrete and asphalt, filter media, ion exchange resin and piping containing low concentrations of source, byproduct and special nuclear material. There is also the potential that this LLRW will contain hazardous constituents, such as metals and volatile organics, that exceed the levels identified in 40 CFR part 261. If the LLRW contains such hazardous constituents, and if the levels of such constituents exceed the 40 CFR part 261 limits, then the LLRW is considered hazardous waste under RCRA and will require treatment at a RCRA facility, such as USEI, prior to disposal. The need for the proposed action is the safe and permanent disposal of HDP's LLRW.

Environmental Impacts of the Proposed Action

In accordance with 10 CFR 20.2002, WEC proposes to dispose of this LLRW at the USEI hazardous waste disposal facility near Grand View, Idaho. The facility occupies Section 19 (2.59 square kilometers or 640 acres) of Township 4 South and Range 2 East in Owyhee County, Idaho. This disposal is in addition to the approximately 23,000 m³ (30,000 yd³) of LLRW which was approved for alternate disposal by Hematite License Amendment 58, the 23,000 m³ (30,000 yd³) of LLRW that

¹ NRC regulation 10 CFR 30.3 requires a NRC issued license for the manufacture, production, transfer, receipt, acquisition, ownership, possession or use of byproduct material. Similarly, 10 CFR 70.3 requires a NRC issued license for the ownership, acquisition, delivery, receipt, possession, use or transfer of special nuclear material. Approvals of the exemption requests are part of the proposed action as USEI is not a NRC licensed facility and Idaho is not an Agreement State under Section 274 of the Atomic Energy Act. If the proposed action is approved, the NRC would issue exemptions pursuant to its exemption grant authority at 10 CFR 30.11(a) and 10 CFR 70.17(a), respectively.

² In NRC regulations, the term "decommission" means to remove a facility or site safely from service and reduce residual radioactivity to a level that permits: Release of the property for unrestricted use and termination of the license; or release of the property under restricted conditions and termination of the license. See 10 CFR 70.4.

was approved for Hematite License Amendment 60, and the 22,000 m³ (29,000 yd³) of LLRW that was approved for Hematite License Amendment 63. As such, the cumulative impacts on the USEI facility and surrounding environment resulting from the receipt of the waste material described in the aforementioned license amendments were considered.

In 2002, WEC and the Missouri Department of Natural Resources (MDNR) entered into a Letter Agreement, which, among other things, provided for MDNR oversight of certain studies and response actions in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan under the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. 9601 *et seq.* (Westinghouse MDNR Review Draft Remedial Design Work Plan, 2002).

On July 3, 2008, Missouri and WEC entered into a Consent Decree, and the Letter Agreement was terminated. The Consent Decree provides for MDNR oversight of those portions of the investigation and selection of the remedy for Operable Units at the site that are not preempted by the Atomic Energy Act of 1954, as amended. The Selected Remedy for Operable Unit 1 at the HDP is Alternative 4: Removal, Treatment of Volatile Organic Compound Waste, and Off-site Disposal of Low-Level Radioactive Waste and Non-Hazardous Treatment Residues.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the staff considered denial of the proposed action (*i.e.*, the “no-action” alternative). The no-action alternative involves discontinuing ongoing decommissioning activities at the HDP and leaving contaminated soil and other radioactive waste at the HDP site. This action would require an exemption from the requirement in 10 CFR 70.38(d) that decommissioning of facilities specifically licensed for possession and use of special nuclear material be completed and approved by the NRC after licensed activities cease. The no-action alternative would result in leaving approximately 87,100 m³ of total waste volume onsite.

As was previously noted, the radioactive waste, regulated by the NRC, is co-mingled with chemically contaminated waste regulated under CERCLA. The no-action alternative would not be in accordance with the July 2009 CERCLA Record of Decision (<http://www.dnr.mo.gov/env/hwp/docs/>

20090721HRSFINALROD.pdf) for the removal and subsequent treatment of the chemically contaminated waste.

The no-action alternative would not allow WEC to meet the requirements of 10 CFR 20.1402 for unrestricted release. Selection of this alternative would require WEC to continue environmental monitoring/surveillance and to maintain administrative and engineered controls to ensure facility safety and security. The environmental impacts of the no-action alternative would include continued contamination of soil and water, which could further escalate over time if groundwater contamination spreads and material such as Technetium-99 continue to leach into the soil. The continued monitoring required at the site would result in environmental impacts due to the emissions from vehicular traffic associated with workers traversing to and from the site and entities providing services and supplies to the Hematite facility. Additional vehicular traffic could also impact public and occupational health with the potential for vehicle accidents.

Another alternative to the proposed action is to dispose of the LLRW in a facility licensed by an NRC Agreement State for the storage and/or disposal of LLRW. For this EA, the NRC evaluated the EnergySolutions, LLC (EnergySolutions) Clive, Utah, facility as the alternative disposal site for the radioactive and chemically hazardous waste.

The EnergySolutions LLRW disposal facility at Clive, Utah, is located 128 kilometers (80 miles) west of Salt Lake City, Utah, and 70 kilometers (45 miles) east of Wendover, Nevada. The site is arid with an annual precipitation of approximately 20 centimeters (8 inches). The facility is licensed by the State of Utah, to dispose of Class A radioactive waste only (Utah License 2300249) and 11e.(2) byproduct material (UT2300478) and holds a Part B Resource Conservation and Recovery Act (RCRA) solid waste permit (Environmental Protection Agency ID No. UTD982598898).

The selection of this alternative would allow WEC to meet the requirements of 10 CFR 20.1402 for unrestricted release. In addition, this site is environmentally similar to USEI. However, this alternative was not selected by WEC.

Alternative Use of Resources

The proposed action does not impact any resource implications discussed in previous environmental reviews.

Agencies and Persons Consulted

In accordance with its stated policy, the NRC staff consulted with the Missouri Department of Conservation, Idaho Department of Fish and Game, and U.S. Fish and Wildlife Service during the development of this EA. On January 14, 2015, the NRC staff consulted with MDNR and IDEQ regarding the environmental impact of the proposed action and solicited comments on a draft EA and FONSI. No comments were received.

III. Finding of No Significant Impact

WEC has requested NRC authorization under 10 CFR 20.2002 for the alternate disposal of an additional 87,100 m³ of radioactive waste consisting of buried debris and contaminated soil, concrete and asphalt, filter media, ion exchange resin and piping containing NRC-licensed source, byproduct, and special nuclear material. In addition, both WEC and USEI have requested that the NRC exempt USEI from the requirements of 10 CFR 30.3 and 10 CFR 70.3. Consistent with 10 CFR 51.21, the NRC conducted the EA for the proposed action described Section II of this document and publicly available in ADAMS (ADAMS Accession No. ML15029A064). The EA is incorporated by reference in this finding. On the basis of the EA, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

Dated at Rockville, Maryland this 8th day of April 2015.

For The Nuclear Regulatory Commission.

Andrew Persinko,

Deputy Director, Division of Decommissioning, Uranium Recovery, and Waste Programs, Office of Nuclear Material Safety and Safeguards.

[FR Doc. 2015-08933 Filed 4-16-15; 8:45 am]

BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

Advisory Committee on the Medical Uses of Isotopes: Meeting Notice

AGENCY: U.S. Nuclear Regulatory Commission.

ACTION: Notice of meeting.

SUMMARY: The U.S. Nuclear Regulatory Commission will convene a teleconference meeting of the Advisory Committee on the Medical Uses of Isotopes (ACMUI) on August 12, 2015, to discuss the ACMUI Germanium/

Gallium-68 subcommittee report. Meeting information, including a copy of the agenda and handouts, will be available at <http://www.nrc.gov/reading-rm/doc-collections/acmui/meetings/2015.html>. The agenda and handouts may also be obtained by contacting Ms. Sophie Holiday using the information below.

DATES: The teleconference meeting will be held on Wednesday, August 12, 2015, 2:00 p.m. to 4:00 p.m. Eastern Standard Time.

Public Participation: Any member of the public who wishes to participate in the teleconference should contact Ms. Holiday using the contact information below.

Contact Information: Ms. Sophie Holiday, U.S. Nuclear Regulatory Commission, Office of Nuclear Material Safety and Safeguards; by telephone: (404) 997-4691; or by email: sophie.holiday@nrc.gov.

Conduct of the Meeting

Dr. Bruce Thomadsen, ACMUI Chairman, will preside over the meeting. Dr. Thomadsen will conduct the meeting in a manner that will facilitate the orderly conduct of business. The following procedures apply to public participation in the meeting:

1. Persons who wish to provide a written statement should submit an electronic copy to Ms. Holiday at the contact information listed above. All submittals must be received by August 07, 2015, three business days prior to the meeting, and must pertain to the topic on the agenda for the meeting.

2. Questions and comments from members of the public will be permitted during the meetings, at the discretion of the Chairman.

3. The draft transcript and meeting summary will be available on ACMUI's Web site <http://www.nrc.gov/reading-rm/doc-collections/acmui/meetings/2015.html> on or about September 24, 2015.

This meeting will be held in accordance with the Atomic Energy Act of 1954, as amended (primarily section 161a); the Federal Advisory Committee Act (5 U.S.C. App); and the Commission's regulations in title 10 of the *Code of Federal Regulations* part 7.

Dated at Rockville, Maryland, this 13th day of April 2015.

For the Nuclear Regulatory Commission.

Andrew L. Bates,

Advisory Committee Management Officer.

[FR Doc. 2015-08935 Filed 4-16-15; 8:45 am]

BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

[Docket No. 52-016; NRC-2008-0250]

UniStar Nuclear Energy; Combined License Application for Calvert Cliffs Nuclear Power Plant, Unit 3

AGENCY: Nuclear Regulatory Commission.

ACTION: Exemption; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing an exemption in response to a December 31, 2014, letter from UniStar Nuclear Energy (UNE), on behalf of Calvert Cliffs Nuclear Project, LLC, and UniStar Operating Services, LLC, co-applicants for the combined license (COL) application for the Calvert Cliffs Nuclear Power Plant Unit 3 (CCNPP3), which requested an exemption to delay the submission of the annual update of the Final Safety Analysis Report (FSAR) to be included in their COL application. The NRC staff reviewed this request and determined that it is appropriate to grant the exemption to delay the FSAR update submittal up to December 31, 2015.

ADDRESSES: Please refer to Docket ID NRC-2008-0250 when contacting the NRC about the availability of information regarding this document. You may access the publicly-available information related to this document using any of the following methods:

- *Federal Rulemaking Web site:* Go to <http://www.regulations.gov> and search for Docket ID NRC-2008-0250. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; email: Carol.Gallagher@nrc.gov. For the technical questions, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- *NRC's Agencywide Documents Access and Management System (ADAMS):* You may obtain publicly-available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "ADAMS Public Documents" and then select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by email to pdr.resource@nrc.gov. The ADAMS accession number for each document referenced in this document (if that document is available in ADAMS) is provided the first time that a document is referenced.

- *NRC's PDR:* You may examine and purchase copies of public documents at

the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

FOR FURTHER INFORMATION CONTACT:

Surinder Arora, Office of New Reactors, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-1421, or email: Surinder.Arora@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Background

On March 14, 2008, UNE, on behalf of Calvert Cliffs Nuclear Project, LLC and UniStar Operating services, LLC, submitted to the NRC a COL application, under subpart C of part 52 of *Title 10 of the Code of Federal Regulations* (10 CFR) to construct and operate a single unit of AREVA NP's U.S. Evolutionary Power Reactor (EPR), designated as Calvert Cliffs Nuclear Power Plant Unit 3, at a site in Calvert County, Maryland. The UNE application was docketed on June 3, 2008 (Docket Number 52-016). UNE's COL application for CCNPP3 incorporates by reference AREVA NP's application for a standard design certification for the U.S. EPR. The NRC is currently performing concurrent reviews of the CCNPP3 COL application as well as AREVA NP's application for design certification of the U.S. EPR. UNE also had previously requested an exemption on November 19, 2013 (this request was later supplemented by UNE's follow up updated request on March 21, 2014), under 10 CFR 50.71(e)(3)(iii) to submit the scheduled 2013 FSAR update, and proposed, for approval, a new submittal deadline of December 31, 2014. The NRC reviewed the bases for the exemption request and granted the exemption as described in **Federal Register** notice published on September 11, 2014 (79 FR 54303).

By a letter dated December 16, 2014 (ADAMS Accession No. ML14351A301), UNE requested that after January 2015, the NRC defer its safety review portion of the Calvert Cliffs Unit 3 COL application until such time that UNE formally requests that the NRC resume its review. The letter also stated that UNE will monitor and evaluate progress of the technical issue resolution for the U.S. EPR FSAR and the development of guidance necessary to address Foreign Ownership Control and Domination (FOCD) prior to requesting the NRC to resume review. By letter dated February 27, 2015 (ADAMS Accession No. ML15062A050), UNE requested that after March 6, 2015, the NRC suspend the Calvert Cliffs Unit 3 COL application review until such time the UNE formally requests that the NRC

resume its review. The letter also stated that UNE will continue to monitor the U.S. EPR Design Certification efforts, as well as other project conditions such as foreign ownership guidance, loan guarantee availability and the electricity market, among others.

II. Request/Action

The regulations at 10 CFR 50.71(e)(3)(iii) require that an applicant for a COL under 10 CFR part 52 shall, during the period from docketing of a COL application and until the Commission makes a finding under 10 CFR 52.103(g) pertaining to facility operation, submit an annual update to the application's FSAR, which is Part 2 of the COL application. Pursuant to 10 CFR 50.71(e)(3)(iii), the next annual update of the FSAR for the CCNPP3 COL application would have been due by December 31, 2014.

On September 30, 2014, UNE submitted Revision 10 of the COL application, including updates to the FSAR. The FSAR updates in Revision 10 of the CCNPP3 COL application satisfied the applicant's requested exemption of November 19, 2013, and the supplement follow up request of March 21, 2014.

By a letter dated December 31, 2014 (ADAMS Accession No. ML15002A245), UNE submitted a request to the NRC, for exemption from the requirements of 10 CFR 50.71(e)(3)(iii) for delaying the scheduled 2014 FSAR updates and proposed for approval a new submittal date of December 31, 2015. UNE's letter states that the requested exemption is a schedule change from the requirements of 10 CFR 50.71(e)(3)(iii) to accommodate the incorporation of the U.S. EPR Design Certification application revisions in an orderly and efficient manner. The current requirements to submit an FSAR update could not be changed, absent the exemption request.

III. Discussion

Pursuant to 10 CFR 50.12, the NRC may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR part 50, including 10 CFR 50.71(e)(3)(iii), when: (1) The exemptions are authorized by law, will not present an undue risk to public health or safety, and are consistent with the common defense and security; and (2) special circumstances are present. As relevant to the requested exemption, special circumstances exist if: (1) Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the

underlying purpose of the rule (10 CFR 50.12(a)(2)(ii)); or (2) the exemption would provide only temporary relief from the applicable regulation and the licensee or applicant has made good faith efforts to comply with the regulation (10 CFR 50.12(a)(2)(v)).

The purpose of 10 CFR 50.71(e)(3)(iii) is to ensure that the NRC has the most up-to-date information regarding the COL application, in order to perform an efficient and effective review. The rule targeted those applications that are being actively reviewed by the NRC. As requested by UNE in the above referenced letter dated February 27, 2015, the NRC suspended the CCNPP3 COL application review until further notification by UNE. Therefore, updating the CCNPP3 FSAR would only cause undue hardship on UNE, and the purpose of 10 CFR 50.71(e)(3)(iii) would still be achieved so long as the next update is submitted by December 31, 2015, as committed to in UNE's exemption request letter.

The requested exemption to defer submittal of the next update to the FSAR included in the CCNPP3 COL application would provide only temporary relief from the regulations of 10 CFR 50.71(e)(3)(iii).

Authorized by Law

The exemption is a one-time schedule exemption from the requirements of 10 CFR 50.71(e)(3)(iii). The exemption would allow UNE to submit the next CCNPP3 COL application FSAR update on or before December 31, 2015. Per 10 CFR 50.12, the NRC staff has determined that granting UNE the requested one-time exemption from the requirements of 10 CFR 50.71(e)(3)(iii) will provide only temporary relief from this regulation and will not result in a violation of the Atomic Energy Act of 1954, as amended, or the NRC's regulations. Therefore, the exemption is authorized by law.

No Undue Risk to Public Health and Safety

The underlying purpose of 10 CFR 50.71(e)(3)(iii) is to provide for a timely and comprehensive update of the FSAR associated with a COL application in order to support an effective and efficient review by the NRC staff and issuance of the NRC staff's safety evaluation report. The requested exemption is solely administrative in nature, in that it pertains to the schedule for submittal to the NRC of revisions to an application under 10 CFR part 52, for which a license has not been granted. Based on the nature of the requested exemption as described above, no new accident precursors are

created by the exemption; therefore, neither the probability, nor the consequences, of postulated accidents are increased. Therefore, the requested exemption does not result in any undue risk to public health and safety.

Consistent With Common Defense and Security

The requested exemption would allow UNE to submit the next FSAR update on or before December 31, 2015. This schedule change has no relation to security issues. Therefore, the common defense and security is not impacted by the exemption.

Special Circumstances

Special circumstances, in accordance with 10 CFR 50.12(a)(2), are present whenever: (1) Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule (10 CFR 50.12(a)(2)(ii)); or (2) The exemption would provide only temporary relief from the applicable regulation and the licensee or applicant has made good faith efforts to comply with the regulation (10 CFR 50.12(a)(2)(v)).

As discussed above, the requested one-time exemption is solely administrative in nature, in that it pertains to a one-time schedule change for submittal of revisions to an application under 10 CFR part 52, for which a license has not been granted. This one-time exemption will support the NRC staff's effective and efficient review of the CCNPP3 COL application, when resumed, as well as issuance of the NRC staff's safety evaluation report. For this reason, application of 10 CFR 50.71(e)(3)(iii) in the particular circumstances is not necessary to achieve the underlying purpose of that rule. Therefore, special circumstances exist under 10 CFR 50.12(a)(2)(ii). In addition, special circumstances are also present under 10 CFR 50.12(a)(2)(v) because granting a one-time exemption from 10 CFR 50.71(e)(3)(iii), would provide only temporary relief. For the above reasons, the special circumstances required by 10 CFR 50.12(a)(2) for the granting of an exemption from 10 CFR 50.71(e)(3)(iii) exist.

Eligibility for Categorical Exclusion From Environmental Review

With respect to the exemption's impact on the quality of the human environment, the NRC has determined that this specific exemption request is eligible for categorical exclusion as identified in 10 CFR 51.22(c)(25). Under

10 CFR 51.22(c)(25), granting of an exemption from the requirements of any regulation of 10 CFR Chapter 1 (which includes 10 CFR 50.71(e)(3)(iii)) is an action that is a categorical exclusion, provided that:

- (i) There is no significant hazards consideration;
- (ii) There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite;
- (iii) There is no significant increase in individual or cumulative public or occupational radiation exposure;
- (iv) There is no significant construction impact;
- (v) There is no significant increase in the potential for or consequences from radiological accidents; and
- (vi) The requirements from which an exemption is sought involve:
 - (A) Recordkeeping requirements;
 - (B) Reporting requirements;
 - (C) Inspection or surveillance requirements;
 - (D) Equipment servicing or maintenance scheduling requirements;
 - (E) Education, training, experience, qualification, requalification or other employment suitability requirements;
 - (F) Safeguard plans, and materials control and accounting inventory scheduling requirements;
 - (G) Scheduling requirements;
 - (H) Surety, insurance or indemnity requirements; or
 - (I) Other requirements of an administrative, managerial, or organizational nature.

The requirements from which this exemption is sought involve only “(B) Reporting requirements” or “(G) Scheduling requirements” of those required by 10 CFR 51.22(c)(25)(vi).

The NRC staff’s determination that each of the applicable criteria for this categorical exclusion is met as follows:

I. 10 CFR 51.22(c)(25)(i): There is no significant hazards consideration.

Staff Analysis: The criteria for determining if an exemption involves a significant hazards consideration are found in 10 CFR 50.92. The proposed action involves only a schedule change regarding the submission of an update to the application for which the licensing review is currently suspended. Therefore, there are no significant hazard considerations because granting the proposed exemption would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

II. 10 CFR 51.22(c)(25)(ii): There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

Staff Analysis: The proposed action involves only a schedule change, which is administrative in nature, and does not involve any changes in the types or significant increase in the amounts of effluents that may be released offsite.

III. 10 CFR 51.22(c)(25)(iii): There is no significant increase in individual or cumulative public or occupational radiation exposure.

Staff Analysis: Since the proposed action involves only a schedule change, which is administrative in nature, it does not contribute to any significant increase in occupational or public radiation exposure.

IV. 10 CFR 51.22(c)(25)(iv): There is no significant construction impact.

Staff Analysis: The proposed action involves only a schedule change which is administrative in nature. While the environmental portion of the application review is complete in that the final environmental impact statement is already issued, the safety portion of the COL application review has been suspended and no license will be issued prior to the NRC resuming the review and receipt of the aforementioned application’s December 31, 2015, submittal of the revised FSAR; therefore, the proposed action does not involve any construction impact.

V. 10 CFR 51.22(c)(25)(v): There is no significant increase in the potential for or consequences from radiological accidents.

Staff Analysis: The proposed action involves only a schedule change which is administrative in nature and does not impact the probability or consequences of accidents.

VI. 10 CFR 51.22(c)(25)(vi): The requirements from which this exemption is sought involve only “(B) Reporting requirements” or “(G) Scheduling requirements.”

Staff Analysis: The exemption request involves requirements in both of these categories because it involves submitting an updated COL FSAR by December 31, 2015, and also relates to the schedule for submitting COL FSAR updates to the NRC.

IV. Conclusion

The NRC has determined that, pursuant to 10 CFR 50.12, the exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security. Also, special circumstances exist under 10 CFR 50.12(a)(2)(ii). This one-time

exemption will support the NRC staff’s effective and efficient review of the COL application, when resumed, as well as issuance of the NRC staff’s safety evaluation report. Therefore, the NRC hereby grants UNE a one-time exemption from the requirements of 10 CFR 50.71(e)(3)(iii) pertaining to the BBNPP COL application to allow submittal of the next FSAR update on or before December 31, 2015.

Pursuant to 10 CFR 51.22, the Commission has determined that the exemption request meets the applicable categorical exclusion criteria set forth in 10 CFR 51.22(c)(25), and the granting of this exemption will not have a significant effect on the quality of the human environment.

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 9th day of April 2015.

For the Nuclear Regulatory Commission.

Frank Akstulewicz,

*Director, Division of New Reactor Licensing,
Office of New Reactors.*

[FR Doc. 2015-08934 Filed 4-16-15; 8:45 am]

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NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-206, 50-361, 50-362, and 72-41; NRC-2015-0093]

Southern California Edison Company San Onofre Nuclear Generating Station, Units 1, 2, and 3, and Independent Spent Fuel Storage Installation

AGENCY: Nuclear Regulatory Commission.

ACTION: Environmental assessment and finding of no significant impact; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of exemptions in response to a request from Southern California Edison Company (SCE or the licensee) that would permit the licensee to reduce its emergency planning (EP) activities at the San Onofre Nuclear Generating Station (SONGS), Units 1, 2, and 3, and the Independent Spent Fuel Storage Installation (ISFSI). The licensee is seeking exemptions that would eliminate the requirements to maintain offsite radiological emergency plans and reduce some of the onsite EP activities based on the reduced risks at the permanently shutdown and defueled reactors. Offsite emergency planning provisions would still exist using a comprehensive emergency management

plan (CEMP) process. The NRC staff is issuing a final Environmental Assessment (EA) and final Finding of No Significant Impact (FONSI) associated with the proposed exemptions.

DATES: The EA and FONSI referenced in this document are available on April 17, 2015.

ADDRESSES: Please refer to Docket ID NRC-2015-0093 when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document using any of the following methods:

- *Federal Rulemaking Web site:* Go to <http://www.regulations.gov> and search for Docket ID NRC-2015-0093. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; email: Carol.Gallagher@nrc.gov. For technical questions, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- *NRC's Agencywide Documents Access and Management System (ADAMS):* You may obtain publicly available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "ADAMS Public Documents" and then select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by email to pdr.resource@nrc.gov. For the convenience of the reader, the ADAMS accession numbers are provided in a table in the "Availability of Documents" section of this document.

- *NRC's PDR:* You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

FOR FURTHER INFORMATION CONTACT: Thomas J. Wengert, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-4037; email: Thomas.Wengert@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

The NRC is considering issuance of an exemption concerning Facility Operating License Nos. DPR-13, NPF-10, and NFP-15, issued to SCE for the operation of SONGS, Units 1, 2, and 3, respectively, located in San Diego County, California. Therefore, as required by sections 51.20(b) and 51.22(c) of Title 10 of the *Code of Federal Regulations* (10 CFR), the NRC

performed an EA. Based on the results of the EA that follows, the NRC has determined not to prepare an environmental impact statement for the exemptions, and is issuing a finding of no significant impact.

SONGS, Units 1, 2, and 3, are permanently shutdown and defueled power reactors in the process of decommissioning. SONGS is located in San Diego County, California, on the coast of the Pacific Ocean, approximately 51 miles north of San Diego, California. SCE is the holder of Facility Operating License Nos. DPR-13, NPF-10, and NFP-15 for SONGS, Units 1, 2, and 3, respectively. SONGS, Unit 1 was permanently shut down in 1993. On June 12, 2013, the licensee provided the certifications that SONGS, Units 2 and 3, had permanently ceased power operations. On June 28 and July 22, 2013, the licensee provided certifications that all fuel had been permanently removed from the SONGS, Units 3 and 2, reactors, respectively. As a permanently shutdown and defueled facility, and pursuant to 10 CFR 50.82(a)(2), SONGS is no longer authorized to operate the reactors or emplace fuel into the reactor vessels, but is still authorized to possess and store irradiated nuclear fuel. Irradiated fuel is currently stored onsite at SONGS in spent fuel pools (SFPs) and in the ISFSI dry casks. The licensee has requested exemptions from certain EP requirements in 10 CFR part 50, "Domestic Licensing of Production and Utilization Facilities," for SONGS, Units 1, 2, and 3, and the ISFSI. The NRC's regulations concerning EP do not recognize the reduced risks after a reactor is permanently shut down and defueled. A permanently shutdown reactor must continue to maintain the same EP requirements as an operating reactor. To establish a level of EP commensurate with the reduced risks, SCE requires exemptions from certain EP regulatory requirements before it can change its emergency plans.

The NRC is considering issuance of exemptions to SCE from portions of 10 CFR 50.47, "Emergency plans," and 10 CFR part 50, appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," which would permit SCE to modify its emergency plan to eliminate the requirements to maintain offsite radiological emergency plans and reduce some of the onsite EP activities based on the reduced risks at SONGS, due to its permanently shutdown and defueled status. Consistent with 10 CFR 51.21, the NRC staff has reviewed the requirements in 10 CFR 51.20(b) and 10 CFR 51.22(c) and determined that an EA

is the appropriate form of environmental review for the requested action. Based on the results of the EA, which is provided in Section II of this document, the NRC is issuing a final finding of no significant impact.

II. Environmental Assessment

Description of the Proposed Action

The proposed action would exempt SCE from meeting certain requirements set forth in 10 CFR 50.47 and appendix E to 10 CFR part 50. More specifically, SCE requested exemptions from (1) certain requirements in 10 CFR 50.47(b) regarding onsite and offsite emergency response plans for nuclear power reactors, (2) certain requirements in 10 CFR 50.47(c)(2) to establish plume exposure and ingestion pathway EP zones for nuclear power reactors, and (3) certain requirements in 10 CFR part 50, appendix E, section IV, which establishes the elements that make up the content of emergency plans. The proposed action, granting these exemptions, would result in the elimination of the requirements for the licensee to maintain offsite radiological emergency plans and reduce some of the onsite EP activities at SONGS, based on the reduced risks at the permanently shutdown and defueled reactors. However, requirements for certain onsite capabilities to communicate and coordinate with offsite response authorities will be retained. If necessary, offsite protective actions could still be implemented using a CEMP process. A CEMP in this context, also referred to as an emergency operations plan (EOP), is addressed in the Federal Emergency Management Agency's (FEMA) Comprehensive Preparedness Guide (CPG) 101, "Developing and Maintaining Emergency Operations Plans." CPG 101 is the foundation for State, territorial, Tribal, and local EP in the United States. It promotes a common understanding of the fundamentals of risk-informed planning and decisionmaking, and helps planners at all levels of government in their efforts to develop and maintain viable, all-hazards, all-threats emergency plans. An EOP is flexible enough for use in all emergencies. It describes how people and property will be protected; provides details regarding who is responsible for carrying out specific actions; identifies the personnel, equipment, facilities, supplies and other resources available; and outlines how all actions will be coordinated. A CEMP is often referred to as a synonym for "all-hazards planning."

The proposed action is in accordance with the licensee's application dated

March 31, 2014, as supplemented by letters dated September 9, October 2, October 7, October 27, November 3, and December 15, 2014. An additional supplemental letter dated October 6, 2014, contains security-related information and is therefore, withheld from public disclosure.

Need for the Proposed Action

The proposed action is needed for SCE to revise the SONGS emergency plan to reflect the permanently shutdown and defueled status of the facility. The EP requirements currently applicable to SONGS are for operating power reactors. There are no explicit regulatory provisions distinguishing EP requirements for a power reactor that has been shut down from those for an operating power reactor. Therefore, since the 10 CFR part 50 licenses for SONGS no longer authorize operation of the reactors or emplacement or retention of fuel into the reactor vessels, as specified in 10 CFR 50.82(a)(2), the occurrence of postulated accidents associated with reactor operation is no longer credible. In its exemption request, the licensee identified the remaining possible accidents at SONGS in its permanently shutdown and defueled condition. The NRC staff evaluated these possible radiological accidents in the Commission Paper (SECY)-14-0144, dated December 17, 2014. In SECY-14-0144, the staff verified that SCE's analyses and calculations provide reasonable assurance that if the requested exemptions were granted, then (1) for a design-basis accident (DBA), an offsite radiological release will not exceed the Environmental Protection Agency's (EPA) Protective Action Guides (PAGs) at the exclusion area boundary, as detailed in the EPA "PAG Manual, Protective Action Guides and Planning Guidance for Radiological Incidents," dated March 2013, which was issued as Draft for Interim Use and Public Comment; and (2) in the unlikely event of a beyond DBA resulting in a loss of all SFP cooling, there is sufficient time to initiate appropriate mitigating actions, and in the unlikely event that a release is projected to occur, there is sufficient time for offsite agencies to take protective actions using a CEMP to protect the health and safety of the public. The Commission approved the NRC staff's recommendation to grant the exemptions in the Staff Requirements

Memorandum to SECY-14-0144, dated March 2, 2015.

Based on these analyses, the licensee states that application of all of the standards and requirements of 10 CFR 50.47(b), 10 CFR 50.47(c), and 10 CFR part 50 appendix E, section IV, are not necessary to achieve the underlying purpose of those rules. SCE also states that it would incur undue costs in the maintenance of an emergency response organization in excess of that actually needed to respond to the diminished scope of credible accidents associated with a shutdown plant.

Environmental Impacts of the Proposed Action

The NRC staff concluded that the exemptions, if granted, will not significantly increase the probability or consequences of accidents at SONGS in its permanently shutdown and defueled condition. There will be no significant change in the types of effluents that may be released offsite. There will be no significant increase in the amounts of any effluents that may be released offsite. There will be no significant increase in the individual or cumulative occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential non-radiological impacts, the proposed action does not have any foreseeable impacts to land, air, or water resources, including impacts to biota. In addition, there are also no known socioeconomic or environmental justice impacts associated with the proposed action. Therefore, there are no significant non-radiological environmental impacts associated with the proposed action.

Accordingly, the NRC staff concludes that there are no significant environmental impacts associated with the proposed action.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the NRC staff considered denial of the proposed action (*i.e.*, the "no-action" alternative). Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources

The proposed action does not involve the use of any different resources than those previously considered in the Final Environmental Statement for SONGS, Units 2 and 3, dated April 1981, and the "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities," NUREG-0586, Supplement 1, dated November 2002.

Agencies or Persons Consulted

The NRC staff did not enter into consultation with any other Federal agency or with the State of California regarding the environmental impact of the proposed action. On April 8, 2015, the California State representatives were notified of this EA and FONSI.

III. Finding of No Significant Impact

The licensee has proposed exemptions from (1) certain requirements in 10 CFR 50.47(b) regarding onsite and offsite emergency response plans for nuclear power reactors; (2) certain requirements in 10 CFR 50.47(c)(2) to establish plume exposure and ingestion pathway EP zones for nuclear power reactors; and (3) certain requirements in 10 CFR part 50, appendix E, section IV, which establishes the elements that make up the content of emergency plans. The proposed action of granting these exemptions would result in the elimination of the requirements for the licensee to maintain offsite radiological emergency plans and reduce some of the onsite EP activities at SONGS, based on the reduced risks at the permanently shutdown and defueled reactor. However, requirements for certain onsite capabilities to communicate and coordinate with offsite response authorities will be retained.

The NRC staff decided not to prepare an environmental impact statement for the proposed action. On the basis of the EA included in Section II of this document, the NRC staff concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC staff has determined that a finding of no significant impact is appropriate.

IV. Availability of Documents

The documents identified in the following table are available to interested persons through one or more of the following methods, as indicated.

Document	ADAMS Accession No./ Web link/ Federal Register citation
Developing and Maintaining Emergency Operations Plans, Comprehensive Preparedness Guide 101, Version 2.0, November 2010.	http://www.fema.gov .
Docket Nos. 50–206, 50–361, 50–362, and 72–041, Emergency Planning Exemption Request, San Onofre Nuclear Generating Station, Units 1, 2, 3 and Independent Spent Fuel Storage Installation, dated March 31, 2014.	ADAMS Accession No. ML14092A332.
Docket Nos. 50–206, 50–361, 50–362, and 72–041, Response to Request for Additional Information Regarding Emergency Planning Exemption Request, San Onofre Nuclear Generating Station, Units 1, 2, 3 and ISFSI dated, September 9, 2014.	ML14258A003.
Docket Nos. 50–206, 50–361, 50–362, and 72–041, Response to Request for Additional Information Regarding Emergency Planning Exemption Request, San Onofre Nuclear Generating Station, Units 1, 2, 3 and ISFSI dated October 2, 2014.	ML14280A265.
Docket Nos. 50–206, 50–361, 50–362, and 72–041, Response to Request for Additional Information Regarding Emergency Planning Exemption Request, San Onofre Nuclear Generating Station, Units 1, 2, 3 and ISFSI dated October 7, 2014.	ML14287A228.
Docket Nos. 50–206, 50–361, 50–362, and 72–041, Response to Requests for Clarification of October 6, 2014 RAI Responses concerning Emergency Planning Exemption Request, San Onofre Nuclear Generating Station, Units 1, 2, 3, and ISFSI, dated October 27, 2014.	ML14303A257.
Docket Nos. 50–206, 50–361, 50–362, and 72–041, Response to Request for Additional Information Regarding Emergency Planning Exemption Request, San Onofre Nuclear Generating Station, Units 1, 2, 3 and ISFSI, dated November 3, 2014.	ML14309A195.
Docket Nos. 50–206, 50–361, 50–362, and 72–041, Redacted Version of Response to Request for Additional Information Proposed Exemptions from Certain Portions of 10 CFR 50.47 and Appendix E, San Onofre Nuclear Generating Station, Units 1, 2, 3 and ISFSI, dated December 15, 2014.	ML14351A078.
Protective Action Guides and Planning Guidance for Radiological Incidents, U.S. Environmental Protection Agency Draft for Interim Use and Public Comment, March 2013.	http://www.epa.gov .
SECY 14–0144, “Request by Southern California Edison for Exemptions from Certain Emergency Planning Requirements,” dated December 17, 2014.	ML14251A554.
Staff Requirements Memorandum to SECY–14–0144, dated March 2, 2015	ML15061A521.
Final Environmental Statement Related to the Operation of San Onofre Nuclear Generating Station, Units 2 and 3, Docket Nos. 50–361 and 50–362, dated April 30, 1981.	ADAMS Legacy Library Accession No. 8105180391.
NUREG–0586, Supplement 1, “Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities, issued November 2002.	ADAMS Accession No. ML023470327.

Dated at Rockville, Maryland, this 9th day of April 2015.

For the Nuclear Regulatory Commission.

Meena K. Khanna,

Chief, Plant Licensing IV–2 and Decommissioning Transition Branch, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.

[FR Doc. 2015–08929 Filed 4–16–15; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

[NRC–2015–0044]

Guidance for Evaluation of Acute Chemical Exposures and Proposed Quantitative Standards

AGENCY: Nuclear Regulatory Commission.

ACTION: Draft interim staff guidance; supplemental information; extension of comment period.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is providing supplemental information to an earlier notice, appearing in the **Federal Register** on March 4, 2015, which requested comment on a draft interim staff guidance (ISG), “Guidance for Evaluation of Acute Chemical

Exposures and Proposed Quantitative Standards.” The draft ISG, if issued in final form, would supplement existing guidance in NUREG–1520, “Standard Review Plan for the Review of a License Application for a Fuel Cycle Facility,” by providing additional guidance and the descriptions of proposed quantitative standards for the NRC to follow when evaluating the integrated safety analysis (ISAs) of acute chemical exposures. This action is necessary to provide the public with the backfitting information with respect to the draft ISG, and includes references to the key documents on backfitting issues. The public comment period was originally scheduled to close on May 18, 2015. The NRC is extending the public comment period on this action to allow more time for members of the public to review the additional information on backfitting before submitting any comments.

DATES: The due date of comments requested in the document published on March 4, 2015 (80 FR 11692) is extended. Comments should be filed no later than July 1, 2015. Comments received after this date will be considered if it is practical to do so, but the Commission is able to ensure

consideration only for comments received before this date.

ADDRESSES: You may submit comments by any of the following methods (unless this document describes a different method for submitting comments on a specific subject):

- *Federal Rulemaking Web site:* Go to <http://www.regulations.gov> and search for Docket ID NRC–2015–0044. Address questions about NRC dockets to Carol Gallagher; telephone: 301–415–3463; email: Carol.Gallagher@nrc.gov. For technical questions, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- *Mail comments to:* Cindy Bladey, Office of Administration, Mail Stop: OWFN–12–H08, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001.

For additional direction on accessing information and submitting comments, see “Obtaining Information and Submitting Comments” in the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: Marilyn Diaz, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington DC

20555–0001; telephone: 301–415–7110, email: Marilyn.Diaz@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID NRC–2015–0044 when contacting the NRC about the availability of information for this action. You may obtain publicly-available information related to this action by any of the following methods:

- *Federal Rulemaking Web site:* Go to <http://www.regulations.gov> and search for Docket ID NRC–2015–0044.

- *NRC's Agencywide Documents Access and Management System (ADAMS):* You may obtain publicly available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “ADAMS Public Documents” and then select “Begin Web-based ADAMS Search.” For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1–800–397–4209, 301–415–4737, or by email to pdr.resource@nrc.gov. The draft ISG is available in ADAMS under Accession No. ML15051A029.

- *NRC's PDR:* You may examine and purchase copies of public documents at the NRC's PDR, Room O1–F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

B. Submitting Comments

Please include Docket ID NRC–2015–0044 in the subject line of your comment submission, in order to ensure that the NRC is able to make your comment submission available to the public in this docket.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC posts all comment submissions at <http://www.regulations.gov> as well as entering the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment

submissions to remove such information before making the comment submissions available to the public or entering the comment submissions into ADAMS.

II. Background

The NRC is providing supplemental information to a notice requesting comment on its draft ISG, “Guidance for Evaluation of Acute Chemical Exposures and Proposed Quantitative Standards,” that was published in the *Federal Register* (80 FR 11692; March 4, 2015). The draft ISG, if issued in final form, would supplement existing guidance in NUREG–1520, “Standard Review Plan for the Review of a License Application for a Fuel Cycle Facility” (ADAMS Accession No. ML101390110), by providing additional guidance for the NRC to follow when evaluating the ISAs of acute chemical exposures, including the descriptions of proposed quantitative standards used to classify exposure events using the general criteria of section 70.61 of title 10 of the *Code of Federal Regulations* (10 CFR). The draft ISG identifies sources of information that the staff could use when reviewing the proposed quantitative standards.

This supplemental information provides the NRC's proposed position on backfitting with respect to the draft ISG, and includes references to the key documents on backfitting. The public comment period was originally scheduled to close on May 18, 2015. The NRC has decided to extend the public comment period on the draft ISG to allow more time for members of the public to review the supplemental information before submitting any comments.

III. Supplemental Information

The NRC believes that the draft ISG, if issued in final form, would not constitute backfitting as defined in 10 CFR 70.76(a)(1). All fuel cycle facility licensees are required to conduct and maintain an ISA that analyzes the chemical hazards of licensed material. The performance requirements in 10 CFR 70.61(b) and (c) require that the risk of each credible high or intermediate consequence event be limited, and such events include those arising from an acute chemical exposure as specified in 10 CFR 70.61(b)(4) and (c)(4). For all credible event consequences as specified in 10 CFR 70.61(b)(4) and (c)(4), the ISA summary must describe the proposed quantitative

standards used to address acute chemical exposures from credible event sequences in accordance with 10 CFR 70.65(b)(7). This requirement is reinforced by the ISA definition in 10 CFR 70.4. Subpart H of 10 CFR part 70 contains performance-based requirements under which the applicant/licensee must address all credible hazards, and there is no regulatory language limiting consideration of chemical hazards to specific exposure pathways. The draft ISG is consistent with the regulatory language in subpart H of 10 CFR part 70 and the NRC's position that the ISA should consider all acute chemical exposures, including dermal and ocular exposures.

Since the initial NRC approval of ISA summaries, there have been a number of hazardous chemical exposure incidents involving dermal and ocular exposures at fuel cycle facilities. Two of these incidents of exposure have resulted in intermediate or high consequences. See Table 1, Fuel Cycle Facility Dermal and Ocular Exposure Events Known to the NRC Staff. The NRC believes that these events demonstrate the need for fuel cycle facilities to address all exposure pathways when updating their safety programs, ISAs, and ISA summaries. The information contained in the draft ISG reflects and reiterates existing NRC regulatory requirements for the fuel cycle facility licensees who will be subject to the draft ISG. Therefore, issuance of the draft ISG in final form would not constitute backfitting. The NRC's positions on backfitting with respect to consideration of all exposure pathways (the subject of this draft ISG) are set forth in a September 15, 2014, letter to the Nuclear Energy Institute (NEI) (ADAMS Accession No. ML14251A150; Enclosure: ADAMS Accession No. ML14251A149). The NRC's September 2014 letter responds to a March 26, 2014, letter from NEI to the NRC (ADAMS Accession No. ML14086A267), which raises backfitting issues with respect to consideration of dermal and ocular exposures to hazardous chemicals at NRC-regulated fuel cycle facilities. The NEI also provided their views on backfitting with respect to consideration of dermal and ocular exposures to hazardous chemicals at NRC-regulated fuel cycle facilities in a November 7, 2014, letter to the General Counsel of the NRC (ADAMS Accession No. ML14322B019).

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Table 1. Fuel Cycle Facility Dermal and Ocular Exposure Events Known to the NRC Staff¹
(events in shaded are of intermediate or high consequence)

	Date	Event Description (drawn from NMED text)
1.	12/3/1992	Employee sprayed with an acid/uranium mixture
2.	1/27/1998	UF ₆ release, three workers received minor HF acid burns on necks and arms (NRC Event Notification (EN) 33601)
3.	8/10/2001	UF ₆ release, two workers treated for HF acid burns (EN38198)
4.	4/4/2006	UF ₆ release, "minor reddening of the skin ... as an apparent result of HF exposure" (NRC Press Release [ADAMS Accession No. ML061170441])
5.	2/26/2007	UF ₆ release, worker received chemical burn while working with UF ₆ cylinder. (NRC Inspection Report 70-1151/2007-022; ADAMS Accession No. ML071980047) ²
6.	4/28/2008	HF spill, the spill resulted in an operator receiving an ocular exposure requiring onsite and offsite emergency medical treatment. (EA-08-204; ADAMS Accession No. ML082960026; IR 70-27/2008-0287)

¹ Table 1 presents all events involving chemical exposures at fuel cycle facilities known to the NRC staff based upon staff review of the Nuclear Medical Events Database (NMED). There may be additional events not included in this Table. This Table includes some chemical exposure events which were not classified as intermediate or high consequence, because small changes in scenario (*e.g.*, location of the worker relative to the spill/release, magnitude of the spill/release, how fast a worker can exit an area, timeliness and nature of first aid) can change the classification of the severity of an event (classified in accordance with the 10 CFR 70.61 criteria).

² This event may be classified as intermediate or high consequence, and was the subject of NRC Information Notice (IN) 2007-022 (ADAMS Accession No. ML071410230). Another chemical exposure event was identified in IN 2007-022, but is not included in this Table because the event involved an inhalation exposure.

	Date	Event Description (drawn from NMED text)
7.	2/12/2009	Holes in glove resulted in second degree nitric acid burns (EN44848)
8.	4/5/2011	KOH exposure on both facial cheeks (EN46730)
9.	4/13/2011	Residual HF passed through zipper of chemical resistant suite and onto the skin of abdomen (EN46749)
10.	4/28/2011	Chemical exposure on ring finger, treated for weak HF or caustic exposure (EN46799)
11.	4/30/2011	Loose HF tubing allowed HF to spray into the atmosphere. Employee noticed redness around his right eye (EN46806)
12.	6/1/2011	Irritation to the eye occurred while cleaning out an HF filter bowl (EN46915)
13.	4/23/2012	Exposure to dilute nitric acid on left forearm and left foot from exposure to uranium bearing acid (EN47861)
14.	10/14/2013	HF exposure to an employee's face (EN49437)

Dated at Rockville, Maryland, this 9th day of April 2015.

For the Nuclear Regulatory Commission.

Craig G. Erlanger,

Deputy Director, Division of Fuel Cycle Safety, Safeguards, and Environmental Review, Office of Nuclear Material Safety and Safeguards.

[FR Doc. 2015-08932 Filed 4-16-15; 8:45 am]

BILLING CODE 7590-01-C

POSTAL REGULATORY COMMISSION

[Docket Nos. MC2015-47 and CP2015-58; Order No. 2437]

New Postal Product

AGENCY: Postal Regulatory Commission.

ACTION: Notice.

SUMMARY: The Commission is noticing a recent Postal Service filing concerning

an addition of Priority Mail Express & Priority Mail Contract 17 to the competitive product list. This notice informs the public of the filing, invites public comment, and takes other administrative steps.

DATES: *Comments are due:* April 20, 2015.

ADDRESSES: Submit comments electronically via the Commission's

Filing Online system at <http://www.prc.gov>. Those who cannot submit comments electronically should contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section by telephone for advice on filing alternatives.

FOR FURTHER INFORMATION CONTACT: David A. Trissell, General Counsel, at 202-789-6820.

SUPPLEMENTARY INFORMATION:

Table of Contents

- I. Introduction
- II. Notice of Commission Action
- III. Ordering Paragraphs

I. Introduction

In accordance with 39 U.S.C. 3642 and 39 CFR 3020.30 *et seq.*, the Postal Service filed a formal request and associated supporting information to add Priority Mail Express & Priority Mail Contract 17 to the competitive product list.¹

The Postal Service contemporaneously filed a redacted contract related to the proposed new product under 39 U.S.C. 3632(b)(3) and 39 CFR 3015.5. *Id.* Attachment B.

To support its Request, the Postal Service filed a copy of the contract, a copy of the Governors' Decision authorizing the product, proposed changes to the Mail Classification Schedule, a Statement of Supporting Justification, a certification of compliance with 39 U.S.C. 3633(a), and an application for non-public treatment of certain materials. It also filed supporting financial workpapers.

II. Notice of Commission Action

The Commission establishes Docket Nos. MC2015-47 and CP2015-58 to consider the Request pertaining to the proposed Priority Mail Express & Priority Mail Contract 17 product and the related contract, respectively.

The Commission invites comments on whether the Postal Service's filings in the captioned dockets are consistent with the policies of 39 U.S.C. 3632, 3633, or 3642, 39 CFR part 3015, and 39 CFR part 3020, subpart B. Comments are due no later than April 20, 2015. The public portions of these filings can be accessed via the Commission's Web site (<http://www.prc.gov>).

The Commission appoints Lyudmila Y. Bzhilyanskaya to serve as Public Representative in these dockets.

¹ Request of the United States Postal Service to Add Priority Mail Express & Priority Mail Contract 17 to Competitive Product List and Notice of Filing (Under Seal) of Unredacted Governors' Decision, Contract, and Supporting Data, April 10, 2015 (Request).

III. Ordering Paragraphs

It is ordered:

1. The Commission establishes Docket Nos. MC2015-47 and CP2015-58 to consider the matters raised in each docket.

2. Pursuant to 39 U.S.C. 505, Lyudmila Y. Bzhilyanskaya is appointed to serve as an officer of the Commission to represent the interests of the general public in these proceedings (Public Representative).

3. Comments are due no later than April 20, 2015.

4. The Secretary shall arrange for publication of this order in the **Federal Register**.

By the Commission.

Shoshana M. Grove,
Secretary.

[FR Doc. 2015-08775 Filed 4-16-15; 8:45 am]

BILLING CODE 7710-FW-P

POSTAL REGULATORY COMMISSION

[Docket No. CP2014-68; Order No. 2438]

New Postal Product

AGENCY: Postal Regulatory Commission.
ACTION: Notice.

SUMMARY: The Commission is noticing a recent Postal Service filing concerning a modification to an existing Global Expedited Package Services 3 negotiated service agreement. This notice informs the public of the filing, invites public comment, and takes other administrative steps.

DATES: *Comments are due:* April 20, 2015.

ADDRESSES: Submit comments electronically via the Commission's Filing Online system at <http://www.prc.gov>. Those who cannot submit comments electronically should contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section by telephone for advice on filing alternatives.

FOR FURTHER INFORMATION CONTACT: David A. Trissell, General Counsel, at 202-789-6820.

SUPPLEMENTARY INFORMATION:

Table of Contents

- I. Introduction
- II. Notice of Commission Action
- III. Ordering Paragraphs

I. Introduction

On April 10, 2015, the Postal Service filed notice that it has agreed to a Modification to the existing Global Expedited Package Services 3 negotiated service agreement approved in this

docket.¹ In support of its Notice, the Postal Service includes a redacted copy of the Modification, and a certification of compliance with 39 U.S.C. 3633(a), as required by 39 CFR 3015.5.

The Postal Service also filed the unredacted Modification and supporting financial information under seal. The Postal Service seeks to incorporate by reference the Application for Non-Public Treatment originally filed in this docket for the protection of information that it has filed under seal. Notice at 1.

The Modification adds an additional provision regarding mail preparation requirements and replaces the agreement's pricing annex. *Id.*

The Postal Service intends for the rates in the Modification to become effective on May 1, 2015. *Id.* The Postal Service asserts that the Modification will not impair the ability of the contract to comply with 39 U.S.C. 3633. *Id.* Attachment 2.

II. Notice of Filings

The Commission invites comments on whether the changes presented in the Postal Service's Notice are consistent with the policies of 39 U.S.C. 3632, 3633, or 3642, 39 CFR 3015.5, and 39 CFR part 3020, subpart B. Comments are due no later than April 20, 2015. The public portions of these filings can be accessed via the Commission's Web site (<http://www.prc.gov>).

The Commission appoints Cassie D'Souza to represent the interests of the general public (Public Representative) in this docket.

III. Ordering Paragraphs

It is ordered:

1. The Commission reopens Docket No. CP2014-68 for consideration of matters raised by the Postal Service's Notice.

2. Pursuant to 39 U.S.C. 505, the Commission appoints Cassie D'Souza to serve as an officer of the Commission (Public Representative) to represent the interests of the general public in this proceeding.

3. Comments are due no later than April 20, 2015.

4. The Secretary shall arrange for publication of this order in the **Federal Register**.

By the Commission.

Shoshana M. Grove,
Secretary.

[FR Doc. 2015-08779 Filed 4-16-15; 8:45 am]

BILLING CODE 7710-FW-P

¹ Notice of the United States Postal Service of Filing Modification to Global Expedited Package Services 3 Negotiated Service Agreement, April 10, 2015 (Notice).

POSTAL REGULATORY COMMISSION

[Docket Nos. MC2015–46 and CP2015–57; Order No. 2439]

New Postal Product

AGENCY: Postal Regulatory Commission.
ACTION: Notice.

SUMMARY: The Commission is noticing a recent Postal Service filing concerning an addition of Priority Mail Contract 122 to the competitive product list. This notice informs the public of the filing, invites public comment, and takes other administrative steps.

DATES: *Comments are due:* April 20, 2015.

ADDRESSES: Submit comments electronically via the Commission's Filing Online system at <http://www.prc.gov>. Those who cannot submit comments electronically should contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section by telephone for advice on filing alternatives.

FOR FURTHER INFORMATION CONTACT: David A. Trissell, General Counsel, at 202–789–6820.

SUPPLEMENTARY INFORMATION:**Table of Contents**

- I. Introduction
- II. Notice of Commission Action
- III. Ordering Paragraphs

I. Introduction

In accordance with 39 U.S.C. 3642 and 39 CFR 3020.30 *et seq.*, the Postal Service filed a formal request and associated supporting information to add Priority Mail Contract 122 to the competitive product list.¹

The Postal Service contemporaneously filed a redacted contract related to the proposed new product under 39 U.S.C. 3632(b)(3) and 39 CFR 3015.5. *Id.* Attachment B.

To support its Request, the Postal Service filed a copy of the contract, a copy of the Governors' Decision authorizing the product, proposed changes to the Mail Classification Schedule, a Statement of Supporting Justification, a certification of compliance with 39 U.S.C. 3633(a), and an application for non-public treatment of certain materials. It also filed supporting financial workpapers.

II. Notice of Commission Action

The Commission establishes Docket Nos. MC2015–46 and CP2015–57 to

consider the Request pertaining to the proposed Priority Mail Contract 122 product and the related contract, respectively.

The Commission invites comments on whether the Postal Service's filings in the captioned dockets are consistent with the policies of 39 U.S.C. 3632, 3633, or 3642, 39 CFR part 3015, and 39 CFR part 3020, subpart B. Comments are due no later than April 20, 2015. The public portions of these filings can be accessed via the Commission's Web site (<http://www.prc.gov>).

The Commission appoints James F. Callow to serve as Public Representative in these dockets.

III. Ordering Paragraphs

It is ordered:

1. The Commission establishes Docket Nos. MC2015–46 and CP2015–57 to consider the matters raised in each docket.

2. Pursuant to 39 U.S.C. 505, James F. Callow is appointed to serve as an officer of the Commission to represent the interests of the general public in these proceedings (Public Representative).

3. Comments are due no later than April 20, 2015.

4. The Secretary shall arrange for publication of this order in the **Federal Register**.

By the Commission.

Shoshana M. Grove,
Secretary.

[FR Doc. 2015–08812 Filed 4–16–15; 8:45 am]

BILLING CODE 7710–FW–P

POSTAL SERVICE**Product Change—Priority Mail Negotiated Service Agreement**

AGENCY: Postal Service™.
ACTION: Notice.

SUMMARY: The Postal Service gives notice of filing a request with the Postal Regulatory Commission to add a domestic shipping services contract to the list of Negotiated Service Agreements in the Mail Classification Schedule's Competitive Products List.

DATES: *Effective date:* April 17, 2015.

FOR FURTHER INFORMATION CONTACT: Elizabeth A. Reed, 202–268–3179.

SUPPLEMENTARY INFORMATION: The United States Postal Service® hereby gives notice that, pursuant to 39 U.S.C. 3642 and 3632(b)(3), on April 10, 2015, it filed with the Postal Regulatory Commission a *Request of the United States Postal Service to Add Priority Mail Contract 122 to Competitive*

Product List. Documents are available at www.prc.gov, Docket Nos. MC2015–46, CP2015–57.

Stanley F. Mires,

Attorney, Federal Requirements.

[FR Doc. 2015–08815 Filed 4–16–15; 8:45 am]

BILLING CODE 7710–12–P

POSTAL SERVICE**Product Change—Priority Mail Express and Priority Mail Negotiated Service Agreement**

AGENCY: Postal Service™.
ACTION: Notice.

SUMMARY: The Postal Service gives notice of filing a request with the Postal Regulatory Commission to add a domestic shipping services contract to the list of Negotiated Service Agreements in the Mail Classification Schedule's Competitive Products List.

DATES: *Effective date:* April 17, 2015.

FOR FURTHER INFORMATION CONTACT: Elizabeth A. Reed, 202–268–3179.

SUPPLEMENTARY INFORMATION: The United States Postal Service® hereby gives notice that, pursuant to 39 U.S.C. 3642 and 3632(b)(3), on April 10, 2015, it filed with the Postal Regulatory Commission a *Request of the United States Postal Service to Add Priority Mail Express & Priority Mail Contract 17 to Competitive Product List*. Documents are available at www.prc.gov, Docket Nos. MC2015–47, CP2015–58.

Stanley F. Mires,

Attorney, Federal Requirements.

[FR Doc. 2015–08816 Filed 4–16–15; 8:45 am]

BILLING CODE 7710–12–P

PRESIDIO TRUST**Notice of Public Meeting**

AGENCY: The Presidio Trust.
ACTION: Notice of public meeting.

SUMMARY: In accordance with section 103(c)(6) of the Presidio Trust Act, 16 U.S.C. 460bb appendix, and in accordance with the Presidio Trust's bylaws, notice is hereby given that a public meeting of the Presidio Trust Board of Directors will be held commencing 6:30 p.m. on Thursday, May 14, 2015, at the Observation Post, 211 Lincoln Boulevard, Presidio of San Francisco, California. The Presidio Trust was created by Congress in 1996 to manage approximately eighty percent of the former U.S. Army base known as the Presidio, in San Francisco, California.

¹ Request of the United States Postal Service to Add Priority Mail Contract 122 to Competitive Product List and Notice of Filing (Under Seal) of Unredacted Governors' Decision, Contract, and Supporting Data, April 10, 2015 (Request).

The purposes of this meeting are to take action on the minutes of previous Board meetings, to provide the Chairperson's report, to provide the Executive Director's report, to provide a partner report, to present "Strategy 2020," to provide an update on the New Presidio Parklands Project, to take action on a budget adjustment, and to receive public comment in accordance with the Trust's Public Outreach Policy. Individuals requiring special accommodation at this meeting, such as needing a sign language interpreter, should contact Mariella deMey at 415.561.5300 prior to May 7, 2015.

DATES: The meeting will begin at 6:30 p.m. on Thursday, May 14, 2015.

ADDRESSES: The meeting will be held at the Observation Post, 211 Lincoln Boulevard, Presidio of San Francisco.

FOR FURTHER INFORMATION CONTACT: Karen Cook, General Counsel, the Presidio Trust, 103 Montgomery Street, P.O. Box 29052, San Francisco, California 94129-0052, Telephone: 415.561.5300.

Dated: April 13, 2015.

Karen A. Cook,
General Counsel.

[FR Doc. 2015-08920 Filed 4-16-15; 8:45 am]

BILLING CODE 4310-4R-P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-74718; File No. SR-C2-2015-006]

Self-Regulatory Organizations; C2 Options Exchange, Incorporated; Notice of Filing and Immediate Effectiveness of Proposed Rule Change Relating to Exchange Opening Procedures

April 13, 2015.

Pursuant to Section 19(b)(1) ¹ of the Securities Exchange Act of 1934 (the "Act") ² and Rule 19b-4 thereunder, ³ notice is hereby given that, on April 2, 2015, C2 Options Exchange, Incorporated (the "Exchange" or "C2") filed with the Securities and Exchange Commission (the "Commission") the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

¹ 15 U.S.C. 78s(b)(1).

² 15 U.S.C. 78a.

³ 17 CFR 240.19b-4.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to amend Rule 6.11 to provide additional clarity regarding the Exchange's opening procedures. The text of the proposed rule change is provided below. (additions are *italicized*; deletions are [bracketed])

* * * * *

C2 Options Exchange, Incorporated Rules
* * * * *

Rule 6.11. Openings (and sometimes Closings)

(a)-(d) No change.

(e) Opening Conditions: Subject to subparagraph (f) below, the System will not open a series if one of the following conditions is met:

(1) There is no quote present in the series;

(2) The opening price is not within an acceptable range (as determined by the Exchange) compared to the lowest quote offer and the highest quote bid;

(3) The opening trade would be at a price that is not the NBBO; or

(4) The opening trade would leave a market order imbalance (*i.e.*, there are more market orders to buy or to sell for the particular series than can be satisfied by the limit orders, quotes and market orders on the opposite side); however, in series that will open at a minimum price increment (*e.g.*, at a price of \$0.05 or, in penny series, at a price of \$0.01), the System will open even if a sell market order imbalance exists.

(f) Presence of Opening Conditions:

(1) If the condition in paragraph (e)(1) is present, the System will check to see if there is an NBBO quote on another market that falls within the acceptable opening range. If such an NBBO quote is present, the series will open and expose the marketable order(s) at the NBBO price. If such an NBBO quote is not present, the System will not open the series and will send a notification to Participants indicating the reason.

(2) If the condition in paragraph (e)(2) is present, the System will match orders and quotes to the extent possible at a single clearing price within the acceptable range and then expose the remaining marketable order(s) at the widest price point within the acceptable opening range or the NBBO price, whichever is better.

(3) If the condition in paragraph (e)(3) is present, the System will match orders and quotes to the extent possible at a single clearing price within the acceptable opening range or the NBBO price, whichever is better, and then expose the remaining marketable order(s) at the NBBO price.

(4) If the condition in paragraph (e)(4) is present, the System will match orders and quotes to the extent possible at a single clearing price and then expose the remaining marketable order(s) at the widest price point within the acceptable opening range or the NBBO price, whichever is better.

(g)-(j) No change.

. . . Interpretations and Policies

.01-.03 No change.

.04 Opening Auction Exposure: The Exchange may determine to expose orders at the opening via auction including under any of the scenarios described in paragraphs (f)(1)-(4) above. In such cases, the exposure process will be conducted via the Hybrid Agency Liaison ("HAL") pursuant to Rule 6.18. Any remaining balance of orders not executed via HAL on the opening will be booked at their limit price to the extent consistent with Rule 6.10 except that any remaining balance of orders not executed via HAL on the opening that are priced, or would be executed at a price, that is not within an acceptable tick distance from the initial HAL price will be cancelled. An "acceptable tick distance" ("ATD") shall be determined by the Exchange on a series-by-series and premium basis and shall be no less than 2 minimum increment ticks. When the HAL Opening Auction Exposure procedure is activated, the ATD will be the same as the ATD established under Rule 6.17.

* * * * *

The text of the proposed rule change is also available on the Exchange's Web site (<http://www.cboe.com/AboutCBOE/CBOELegalRegulatoryHome.aspx>), at the Exchange's Office of the Secretary, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of, and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange is proposing to adopt Interpretation and Policy .04 to Rule 6.11 relating to the Exchange's opening procedures to provide additional clarity in the Rules regarding the manner in which marketable orders may be exposed at the opening of trading. Specifically, proposed Interpretation and Policy .04 to Rule 6.11 would provide that the Exchange may determine to expose marketable orders on the opening via the Hybrid Agency Liaison ("HAL") auction procedures described in Rule 6.18.⁴ Proposed

⁴ Such determination as to whether to expose marketable orders on the opening via the HAL

Interpretation and Policy .04 to Rule 6.11 would also provide that any remaining balance of orders not executed via HAL on the opening will be booked at their limit price to the extent consistent with Rule 6.10⁵ except that any remaining balance of orders not executed via HAL on the opening that are priced, or would be executed at a price, that is not within an acceptable tick distance from the initial HAL price will be cancelled. [sic]⁶ The proposed Interpretation and Policy is substantially based, in all material respects, on the HAL Opening Procedure set forth in Interpretation and Policy .03 to Chicago Board Options Exchange, Incorporated (“CBOE”) Rule 6.2B (Hybrid Opening System (“HOSS”)).

Under the Exchange’s current opening procedures, pre-opening orders and quotes and orders resting in the book from the prior business day are matched in the Exchange’s automated trading system (“System”) at a single clearing price.⁷ Bids and offers that cannot be matched at a single clearing price are left to rest in the book. Subject to certain conditions, the System will not open a series for trading if there are no quotes in the series, the opening price is not within an acceptable range (as determined by the Exchange) compared to the lowest quote offer and the highest quote bid⁸ or at a price at or within the

auction procedures described in Rule 6.18 would be made prior to activation and announced via Regulatory Circular.

⁵Notably, certain order types, or portions thereof, may not, by rule, be booked. *See, e.g.*, Rule 6.10(6) (Immediate-or-Cancel Order); 6.10(7) (Opening Rotation Order). Accordingly, under proposed Interpretation .04 to Rule 6.11, any remaining balance of orders not executed via HAL on the opening would be booked at their limit price, but only to the extent consistent with Rule 6.10.

⁶This includes a market order, which cannot be filled in total. In such cases, the remainder of a market order would be cancelled when the order cannot be filled on an away exchange and no quotes are present on C2.

⁷In determining the priority of orders and quotes to be traded at a single clearing price, the System gives priority to market orders first, then to limit orders and quotes whose price is better than the opening price, and then to limit orders and quotes at the opening price. *See* Rule 6.11(g)(1).

⁸The Exchange will not automatically execute eligible orders that are marketable if (1) the width between the national best bid and national best offer is not within an acceptable price range (as determined by the Exchange on a series by series basis for market orders and/or marketable limit orders and announced to the Trading Permit Holders via Regulatory Circular), or (2) the execution would follow an initial partial execution on the Exchange and would be at a subsequent price that is not within an acceptable tick distance from the initial execution (as determined by the Exchange on a series by series and premium basis for market orders and/or marketable limit orders and announced to the Trading Permit Holders via Regulatory Circular). The “acceptable price range” (“APR”) shall be determined by the Exchange on a

national best bid or offer (“NBBO”), or the opening trade would leave an order imbalance.⁹ If one of these conditions is present at the opening, the Exchange will follow the opening procedures set forth in Rule 6.11(f) (as described below) to open trading in the affected series. Notably, each of the procedures described in Rule 6.11(f) explicitly permit the Exchange to expose marketable orders at the opening of trading.¹⁰

For example, under Rule 6.11(f)(1), if a marketable order is resting in the book of a series for which no quotes are disseminated on the Exchange, the System will look for another market that is quoting the NBBO within an acceptable opening price range. If such quotes exist, the System will open the series and expose the marketable order at the NBBO. If there are no quotes on C2 and no quotes on any away exchange that are within the APR for the series, the System will not open the series and will send a notification to participants indicating the reason. Thus, assume that the NBBO for a particular option is \$1.00–\$1.20 for 100 contracts on either side. The APR in the series is set at \$0.50 above the \$0.375 minimum APR for series with quote bids less than \$2.00. There are no quotes in the series on C2, but there is a market order to buy 100 contracts in the book. In this case, the System would verify that the NBBO quotes on the away exchange were within the APR for the series (the midpoint of the NBBO (*i.e.* \$1.00–\$1.20) plus or minus half of the APR (*i.e.* \$0.25) in either direction of the midpoint or \$0.85–\$1.35) and, if within the acceptable opening range (*i.e.* \$1.20 is within the APR), expose the marketable buy order at the NBO price of \$1.20.

Under Rule 6.11(f)(2), if the opening price is not within an acceptable range compared to the lowest quote offer and highest quote bid, the System will match orders and quotes to the extent possible at a single clearing price within the acceptable range and then expose the remaining marketable order(s) at the widest price point within the acceptable price range or the NBBO price, whichever is better. For example, assume that the NBBO for a particular option is \$0.90–\$1.50 for 100 contracts

class-by-class basis and shall be no less than: \$0.375 between the bid and offer for each option contract for which the bid is less than \$2, \$0.60 where the bid is at least \$2 but does not exceed \$5, \$0.75 where the bid is more than \$5 but does not exceed \$10, \$1.20 where the bid is more than \$10 but does not exceed \$20, and \$1.50 where the bid is more than \$20. An “acceptable tick distance” (“ATD”) shall be no less than 2 minimum increment ticks. *See* Rule 6.17.

⁹ *See* Rule 6.11(e).

¹⁰ *See also* Rule 6.11(g)(2).

on either side. The highest quote bid and lowest quote offer at C2 are \$0.80–\$1.50 each for 100 contracts. Again, the APR for series in which the quote bid is less than \$2.00 is \$0.50 and there is a customer order in the book to buy 100 contracts at the market price. In this case, the System would check the marketable price of \$1.50 for the trade against the APR for the series (*i.e.* the midpoint between the highest bid and lowest offer (*i.e.* \$1.15) plus or minus half of the APR (*i.e.* \$0.25) or \$0.90–\$1.40) and determine that the marketable price of \$1.50 would not be within the APR. The System would then expose the order at the widest point within the APR (*i.e.* \$1.40) or the NBBO (*i.e.* \$1.50), whichever is better. Thus, in this case the order would be exposed at \$1.40 (and booked provided there is no contra interest expressed at \$1.40 or better during the exposure period).

Similarly, Rule 6.11(f)(3) provides that if the opening trade would be at a price that is not the NBBO, the System will match orders and quotes to the extent possible at a single clearing price within the APR or the NBBO, whichever is better, and then expose the remaining marketable order(s) at the NBBO. For example, assume that the NBBO for a particular option is \$0.05–\$1.25 for 100 contracts on either side. The highest quote bid and lowest quote offer on C2 are \$0.05–\$1.75 respectively, each for 100 contracts. Again, because the quote bid for the series is less than \$2.00, the APR is \$0.50. A customer order to buy 100 contracts at the market is resting in the book. In this case, the System would be unable to match the market with any quote (*i.e.* \$1.75) within the APR (*i.e.* \$1.10 (the midpoint between the highest bid and lowest offer (*i.e.* \$0.85) plus or minus half of the APR (*i.e.* \$0.25) or \$0.60–\$1.10) or the NBO of \$1.25. Accordingly, the System would expose the order at the NBO of \$1.25.

Finally, if the opening trade would leave a market order imbalance, the System will match orders and quotes to the extent possible at a single clearing price and then expose the remaining marketable order(s) at the widest price point within the APR or the NBBO, whichever is better pursuant to Rule 6.11(f)(4). For example, assume that the NBBO for a particular option is \$1.00–\$1.20 with quotes for 100 contracts on each side. The highest quote bid on CBOE is \$1.00 for 100 contracts and lowest quote offer is \$1.20 for 100 contracts. The quote bid being less than \$2.00, the APR is \$0.50. There is a customer order in the book to buy 100 contracts at the market. There are no other quotes or orders in the book. In this case, the System would match the

orders and quotes at \$1.20 (within the APR of \$0.85–\$1.35) and allocate 10 contracts according to the matching algorithm in effect in the class and the applicable rules. The remaining 90 contracts would then be exposed at the better of the widest point within the APR or the NBO (in this case \$1.20). Thus, each of the four scenarios for permitting the opening of trading in a series in which one of the four conditions described in Rule 6.11(e) is present contemplate exposing marketable orders at the NBBO (or, if better, the widest point of the APR).

Although Rule 6.11 expressly permits exposure of orders on the open, Rule 6.11 does not set forth a specific process by which orders will be exposed or specify how such orders be handled after they are exposed.¹¹ While the Exchange believes that Rule 6.11(g)(2) makes clear that such exposure may be via auction,¹² the Exchange also believes that additional detail should be added to the Rules to further clarify the auction process on the opening.¹³ Proposed Interpretation and Policy .04

¹¹ See Rule 6.11(g)(2) providing that all orders exposed pursuant to Rule 6.11 shall be exposed for a period of time designated by the Exchange that does not exceed 1.5 seconds.

¹² Under Rule 6.11(g)(2), “All orders exposed pursuant to this Rule [6.11 (Openings (and sometimes closings))] shall be exposed for a period of time which shall not exceed 1.5 seconds. Once an exposed order has received a response, a matching period begins which shall last for a period of time designated by the Exchange that shall not exceed 1 second.” Accordingly, in context, the Exchange interprets the term “expose” to mean a designated period of time in which an interest will be represented to the trading crowd in an effort to solicit order responses or contra interests to trade against (*i.e.* an auction).

¹³ When C2 launched, C2RG10–005 announced that “upon opening, remaining marketable orders will be ‘linked,’ with no exposure period, to away exchanges disseminating better prices.” This “linkage” was originally achieved on C2 by activating the Hybrid Agency Liaison (HAL) Opening Procedure (HAL–O) functionality (which incorporates the NBBO calculation and linkage processing into the opening rotation), but setting the HAL–O timer to zero and also restricting Trading Permit Holders (TPHs) from subscribing to auctions. In July 2011, the Exchange introduced Complex Order Auctions (COA) on C2. At that time, the ability for a TPH to subscribe to auctions was made available. This caused a HAL–O auction message to be sent to C2 auction subscribers whenever an order linked away. Additionally, it is noted that periodically, when systems experience heavy processing volumes, latency may cause the auction process to last longer than its prescribed timer setting of zero. On December 5, 2014, the following notification was posted to the Exchange’s System Status Web page, “During periods of heavy systems processing at the open, remaining orders marketable against the NBBO may be exposed for short periods, generally not to exceed 110 MS. Until further notice, TPHs should subscribe to the exposure process to ensure response capabilities during these times.” This filing proposes to remedy this issue by simply exposing orders at the opening to an HAL–O auction process not to exceed 1.5 seconds.

to Rule 6.11 is intended to add this additional detail in the Rules. Specifically, the Exchange proposes to amend Rule 6.11 to include reference to the Exchange’s HAL procedures. The Interpretation and Policy would provide that the Exchange could determine to expose orders at the opening via auction including under any of the scenarios described in paragraphs (f)(1)–(4) above and that in such cases, the exposure process would be conducted via HAL pursuant to Rule 6.18.¹⁴ The Exchange notes that proposed Interpretation and Policy .04 to Rule 6.11, including this provision, is substantially similar in all material respects to Interpretation and Policy .03 to CBOE Rule 6.2B, setting forth CBOE’s HAL Opening Procedures.

In addition, the proposed rule would operate in a manner similar to the HAL Opening Procedures on CBOE with respect to the handling of remaining balances not executed via HAL exposure and provide that any remaining balance of orders not executed via HAL on the opening would be booked except that any remaining balance of orders not executed via HAL on the opening will be booked at their limit price to the extent consistent with Rule 6.10 except that any remaining balance of orders not executed via HAL on the opening that are priced, or would be executed at a price, that is not within an acceptable tick distance from the initial HAL price will be cancelled. The “acceptable tick distance” would be determined by the Exchange on a series-by-series and premium basis in increments not less than two minimum increment ticks. If the HAL Opening Auction Exposure procedure were activated, the acceptable tick distance would be the same as the acceptable tick distance established under Rule 6.17. This final provision of the Interpretation and Policy is consistent with the Exchange’s Price Check Parameters rules in Interpretation and Policy .04 to Rule 6.13 and Rule 6.17 and would simply codify the extension of the Exchange’s Market-Width and Drill-Through Parameters to Rule 6.11. These proposed provisions are substantially similar to the HAL Opening Procedures set forth in Interpretation and Policy .03 to CBOE Rule 6.2B in all material respects other than they do not provide for manual handling of orders and in open outcry.

As proposed, the Exchange is seeking merely to extend the opening order exposure procedures already in place on CBOE.¹⁵ The Exchange believes that extending the HAL Opening Procedures

to C2 is will provide clarity to the Exchange’s rules as well as harmonize the procedures of the two exchanges, ultimately to the benefit of all market participants. The Exchange believes the proposed rule change would serve to further enhance the efficiency of opening rotations with procedures to accommodate a process for addressing opening quotes, acceptable opening ranges, and market order imbalance conditions that may occur on the openings, as well as address NBBO condition scenarios where the Exchange’s opening trade might occur at an improved price rather than routing to an away market. Moreover, the Exchange believes that exposing orders on the open helps facilitate transactions in securities and is consistent with the goals of a free and open market and national market system.

2. Statutory Basis

The Exchange believes the proposed rule change is consistent with the Act and the rules and regulations thereunder applicable to the Exchange and, in particular, the requirements of Section 6(b) of the Act.¹⁶ Specifically, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)¹⁷ requirements that the rules of an exchange be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest. Additionally, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)¹⁸ requirement that the rules of an exchange not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

In particular, the proposed rule change is designed to align the Exchange’s rules with those of CBOE by extending the procedures of CBOE’s HAL on the open to C2. The Exchange believes that extending the HAL Opening Procedures to C2 is will provide clarity to the Exchange’s rules as well as harmonize the procedures of the two exchanges, ultimately to the benefit of all market participants. The Exchange believes the proposed rule change would serve to further enhance

¹⁴ See note 3 *supra*.

¹⁵ See CBOE Rule 6.2B Interpretation and Policy .03.

¹⁶ 15 U.S.C. 78f(b).

¹⁷ 15 U.S.C. 78f(b)(5).

¹⁸ *Id.*

the efficiency of opening rotations with procedures to accommodate a process for addressing opening quotes, acceptable opening ranges, and market order imbalance conditions that may occur on the openings, as well as address NBBO condition scenarios where the Exchange's opening trade might occur at an improved price rather than routing to an away market. The proposed rule change will increase competition on C2 by providing an opportunity for market participants to benefit from additional exposure of orders and participation in auctions at the open. Furthermore, the Exchange believes that exposing orders on the open helps facilitate transactions in securities and is consistent with the goals of a free and open market and national market system.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The Exchange does not believe that the proposed rule change will impose any burden on intramarket competition that is not necessary or appropriate in furtherance of the purposes of the Act because the proposed change will be equally applied and will equally affect all market participants' orders that qualify for the HAL function. Moreover, the Exchange believes that the proposed rule change will increase competition amongst exchanges and market participants. The proposed will expose allow orders to be exposed to meaningful price improvement mechanisms at the opening of trading. The HAL on the opening procedure will allow C2 TPHs to compete with quotes on other exchanges and step up to the best national prices offered before orders are linked away. This price improvement process will not only ensure that orders on C2 are afforded the best prices available, but also afford additional opportunities to C2 TPH to compete with quotes on away exchanges at the opening of trading. The Exchange believes that price improvement mechanisms increase competition in the marketplace and increase opportunities for orders to receive best execution at the Exchange.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The Exchange neither solicited nor received written comments on the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, if consistent with the protection of investors and the public interest, the proposed rule change has become effective pursuant to Section 19(b)(3)(A) of the Act¹⁹ and Rule 19b-4(f)(6)(iii) thereunder.²⁰

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission will institute proceedings to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an email to rule-comments@sec.gov. Please include File Number SR-C2-2015-006 on the subject line.

Paper Comments

- Send paper comments in triplicate to Brent J. Fields, Secretary, Securities and Exchange Commission, 100 F Street NE., Washington, DC 20549-1090.

All submissions should refer to File Number SR-C2-2015-006. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use

¹⁹ 15 U.S.C. 78s(b)(3)(A).

²⁰ 17 CFR 240.19b-4(f)(6). In addition, Rule 19b-4(f)(6) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for Web site viewing and printing in the Commission's Public Reference Room, 100 F Street NE., Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-C2-2015-006 and should be submitted on or before May 8, 2015.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.²¹

Brent J. Fields,
Secretary.

[FR Doc. 2015-08795 Filed 4-16-15; 8:45 am]

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SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-74715; File No. SR-NYSEArca-2015-24]

Self-Regulatory Organizations; NYSE Arca, Inc.; Notice of Filing and Immediate Effectiveness of Proposed Rule Change Amending the NYSE Arca Equities Schedule of Fees and Charges for Exchange Services To Provide a Second Way To Qualify for the Cross-Asset Tier Credit of \$0.0030 Per Share for Orders That Provide Liquidity to the Exchange

April 13, 2015.

Pursuant to Section 19(b)(1)¹ of the Securities Exchange Act of 1934 (the "Act")² and Rule 19b-4 thereunder,³ notice is hereby given that, on March 31, 2015, NYSE Arca, Inc. (the

²¹ 17 CFR 200.30-3(a)(12).

¹ 15 U.S.C. 78s(b)(1).

² 15 U.S.C. 78a.

³ 17 CFR 240.19b-4.

“Exchange” or “NYSE Arca”) filed with the Securities and Exchange Commission (the “Commission”) the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization’s Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to amend the NYSE Arca Equities Schedule of Fees and Charges for Exchange Services (the “Fee Schedule”) to provide a second way to qualify for the Cross-Asset Tier credit of \$0.0030 per share for orders that provide liquidity to the Exchange. The Exchange proposes to implement the fee change effective April 1, 2015. The text of the proposed rule change is available on the Exchange’s Web site at www.nyse.com, at the principal office of the Exchange, and at the Commission’s Public Reference Room.

II. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of those statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

A. Self-Regulatory Organization’s Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend the Fee Schedule to provide a second way to qualify for the Cross-Asset Tier credit of \$0.0030 per share for orders that provide liquidity to the Exchange. The Exchange proposes to implement the fee change effective April 1, 2015.

Currently, ETP Holders, including Market Makers, qualify for the Cross-Asset Tier credit of \$0.0030 per share for orders that provide liquidity to the Exchange if they (1) provide liquidity of 0.40% or more of United States consolidated average daily volume (“US CADV”)⁴ per month and (2) are

affiliated with an NYSE Arca Options Trading Permit (“OTP”) Holder or OTP Firm that provides an average daily volume (“ADV”) of electronic posted Customer executions in Penny Pilot issues on NYSE Arca Options (excluding mini options) of at least 0.95% of total Customer equity and Exchange-Traded Fund (“ETF”) option ADV, as reported by the Options Clearing Corporation (“OCC”). For all other fees and credits, Tiered or Basic Rates apply based on a firm’s qualifying levels.

The Exchange proposes to permit ETP Holders, including Market Makers, to alternatively qualify for the Cross-Asset Tier credit if they (1) provide liquidity of 0.30% or more of the US CADV per month, (2) are affiliated with an OTP Holder or OTP Firm that provides an ADV of electronic posted Customer executions in all issues on NYSE Arca Options (similarly excluding mini options) of at least 0.80% of total Customer equity and ETF option ADV as reported by OCC, and (3) executes an ADV of Retail Orders⁵ that provide liquidity during the month that is 0.10% or more of the US CADV. The Exchange believes that the proposal would create an added incentive for ETP Holders to bring additional retail order flow to a public market.

The proposed changes are not otherwise intended to address any other problem, and the Exchange is not aware of any significant problem that the affected market participants would have in complying with the proposed changes.

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with Section 6(b) of the Act,⁶ in general, and furthers the objectives of Sections

alternative to qualifying for the Cross-Asset Tier. Specifically, US CADV would mean the United States Consolidated Average Daily Volume for transactions reported to the Consolidated Tape, excluding odd lots through January 31, 2014 (except for purposes of Lead Market Maker pricing), and excludes volume on days when the market closes early and on the date of the annual reconstitution of the Russell Investments Indexes. Transactions that are not reported to the Consolidated Tape are not included in US CADV. See Fee Schedule, footnote 4.

⁴ Retail Orders are defined in the Fee Schedule as orders designated as retail orders and that meet the requirements of Rule 7.44(a)(3), but that are not executed in the Retail Liquidity Program. The Retail Liquidity Program is a pilot program designed to attract additional retail order flow to the Exchange for NYSE Arca-listed securities and securities traded pursuant to unlisted trading privileges while also providing the potential for price improvement to such order flow. See Rule 7.44. See Securities Exchange Act Release No. 71176 (December 23, 2013), 78 FR 79524 (December 30, 2013) (SR–NYSEArca-2013-107).

⁶ 15 U.S.C. 78f(b).

6(b)(4) and 6(b)(5) of the Act,⁷ in particular, because it provides for the equitable allocation of reasonable dues, fees, and other charges among its members, issuers and other persons using its facilities and does not unfairly discriminate between customers, issuers, brokers or dealers.

The Exchange believes that the proposal to amend the Cross-Asset Tier is reasonable because it provides ETP Holders affiliated with an NYSE Arca Options OTP Holder or OTP Firm with an additional way to qualify for the \$0.0030 rebate. The Exchange believes that the proposal to utilize a lower requirement of an ETP Holder or Market Maker providing liquidity of 0.30% or more of US CADV, rather than 0.40% or more of US CADV, is reasonable because to qualify for the alternative an ETP Holder or Market Maker would also be required to trade Retail Orders on the Exchange of 0.10% or more of the US CADV. In addition, the Exchange believes that the proposed alternative’s requirement that an ETP Holder’s and Market Maker’s affiliated OTP Holder or OTP Firm provide an ADV of electronic posted Customer executions in all issues on NYSE Arca Options (excluding mini options) of at least 0.80% of total Customer equity and ETF option ADV as reported by OCC, rather than electronic posted Customer executions in Penny Pilot issues (excluding mini options) of at least 0.95% of total Customer equity and ETF option ADV, is reasonable because the proposed alternative to qualifying for the Cross-Asset Tier credit also requires a Retail Order requirement of 0.10%.

The Exchange believes that the proposal is equitable and not unfairly discriminatory because all ETP Holders would be subject to the same fee structure and be offered the same alternative to qualifying for the Cross-Asset Tier credit. Moreover, the Cross-Asset Tier is available for all ETP Holders to satisfy, except for those ETP Holders that are not affiliated with an NYSE Arca Options OTP Holder or OTP Firm. ETP Holders that are not affiliated with an NYSE Arca Options OTP Holder or OTP Firm are eligible for a \$0.0030 credit by other means than the Cross-Asset Tier credit. Specifically, ETP Holders can qualify for a \$0.0030 credit under Tier 1 (Tape A and C) or under the Basic Rates for Retail Orders that provide liquidity to the Book (Tape A, B and C).

Further, the Exchange believes that the proposal is reasonable and would create an added incentive for ETP Holders to execute Retail Orders on the

⁷ 15 U.S.C. 78f(b)(4) and (5).

⁴ The Exchange proposes to use the same definition US CADV for purposes of the proposed

Exchange. The Exchange believes that the proposed change is equitable and not unfairly discriminatory because maintaining or increasing the proportion of Retail Orders in exchange-listed securities that are executed on a registered national securities exchange (rather than relying on certain available off-exchange execution methods) would contribute to investors' confidence in the fairness of their transactions and would benefit all investors by deepening the Exchange's liquidity pool, supporting the quality of price discovery, promoting market transparency and improving investor protection.

The Exchange believes that it is subject to significant competitive forces, as described below in the Exchange's statement regarding the burden on competition.

For the foregoing reasons, the Exchange believes that the proposal is consistent with the Act.

B. Self-Regulatory Organization's Statement on Burden on Competition

In accordance with Section 6(b)(8) of the Act,⁸ the Exchange believes that the proposed rule change would not impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. Instead, the Exchange believes that the proposal to add an additional way to qualify for the Cross-Asset Tier would encourage the submission of additional liquidity to a public exchange, thereby promoting price discovery and transparency and enhancing order execution opportunities for ETP Holders. The Exchange believes that this could promote competition between the Exchange and other execution venues, including those that currently offer similar order types and comparable transaction pricing, by encouraging additional orders to be sent to the Exchange for execution.

Further, the proposal to add another way to qualify for the Cross-Asset Tier credit of \$0.0030 per share for orders that provide liquidity to the Exchange will not place an undue burden on competition because the Cross-Asset Tier would be available for all ETP Holders to satisfy, except for those ETP Holders that are not affiliated with an NYSE Arca Options OTP Holder or OTP Firm. ETP Holders that are not affiliated with an NYSE Arca Options OTP Holder or OTP Firm are eligible for a \$0.0030 credit by others means than the Cross-Asset Tier credit. Specifically, ETP Holders can qualify for a \$0.0030 credit under Tier 1 (Tape A and C) or under

the Basic Rates for Retail Orders that provide liquidity to the Book (Tape A, B and C). ETP Holders would be subject to the same fee structure and be offered the same alternative to qualifying for the Cross-Asset Tier credit. Similarly, the proposal to utilize a lower requirement of at least 0.80% of total Customer equity and ETF option ADV as reported by OCC will not place an undue burden on competition because it is in line with the increased Retail Order requirement of 0.10%.

Finally, the Exchange notes that it operates in a highly competitive market in which market participants can readily favor competing venues if they deem fee levels at a particular venue to be excessive or rebate opportunities available at other venues to be more favorable. In such an environment, the Exchange must continually adjust its fees and rebates to remain competitive with other exchanges and with alternative trading systems that have been exempted from compliance with the statutory standards applicable to exchanges. Because competitors are free to modify their own fees and credits in response, and because market participants may readily adjust their order routing practices, the Exchange believes that the degree to which fee changes in this market may impose any burden on competition is extremely limited. As a result of all of these considerations, the Exchange does not believe that the proposed changes will impair the ability of ETP Holders or competing order execution venues to maintain their competitive standing in the financial markets.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change is effective upon filing pursuant to Section 19(b)(3)(A)⁹ of the Act and subparagraph (f)(2) of Rule 19b-4¹⁰ thereunder, because it establishes a due, fee, or other charge imposed by the Exchange.

At any time within 60 days of the filing of such proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such

action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings under Section 19(b)(2)(B)¹¹ of the Act to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an email to rule-comments@sec.gov. Please include File Number SR-NYSEArca-2015-24 on the subject line.

Paper Comments

- Send paper comments in triplicate to Brent J. Fields, Secretary, Securities and Exchange Commission, 100 F Street NE., Washington, DC 20549-1090.

All submissions should refer to File Number SR-NYSEArca-2015-24. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for Web site viewing and printing in the Commission's Public Reference Room, 100 F Street NE., Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing will also be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal

⁸ 15 U.S.C. 78f(b)(8).

⁹ 15 U.S.C. 78s(b)(3)(A).

¹⁰ 17 CFR 240.19b-4(f)(2).

¹¹ 15 U.S.C. 78s(b)(2)(B).

identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–NYSEArca–2015–24 and should be submitted on or before May 8, 2015.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.¹²

Brent J. Fields,
Secretary.

[FR Doc. 2015–08792 Filed 4–16–15; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–74559A; File No. SR–NYSEArca–2014–100]

Self-Regulatory Organizations; NYSE Arca, Inc.; Notice of Designation of a Longer Period for Commission Action on Proceedings To Determine Whether To Approve or Disapprove a Proposed Rule Change, as Modified by Amendment No. 1 Thereto, Relating To Listing and Trading of Shares of the SPDR SSGA Global Managed Volatility ETF Under NYSE Arca Equities Rule 8.600; Correction

April 13, 2015.

AGENCY: Securities and Exchange Commission.

ACTION: Notice; correction.

SUMMARY: The Securities and Exchange Commission published a document in the *Federal Register* of March 26, 2015, concerning a Notice of Designation of a Longer Period for Commission Action on Proceedings to Determine Whether To Approve or Disapprove a Proposed Rule Change, as Modified by Amendment No. 1 Thereto, Relating To Listing and Trading of Shares of the SPDR SSGA Global Managed Volatility ETF Under NYSE Arca Equities Rule 8.600 by NYSE Arca, Inc.; the document contained an incorrect date.

FOR FURTHER INFORMATION CONTACT: Leigh Duffy, Division of Trading and Markets, Securities and Exchange Commission, 100 F Street NE., Washington, DC 20549, (202) 551–5928.

Correction

In the *Federal Register* of March 26, 2015, in FR Doc. 2015–06892, on page 16047, in the thirty-first line of the third column, correct the date May 7, 2015 to read May 22, 2015.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.¹

Brent J. Fields,
Secretary.

[FR Doc. 2015–08791 Filed 4–16–15; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–74717; File No. SR–EDGA–2015–17]

Self-Regulatory Organizations; EDGA Exchange, Inc.; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend the Content of the BATS One Feed Under Rule 13.8(b) To Include Consolidated Volume for All Listed Equity Securities

April 13, 2015.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the “Act”),¹ and Rule 19b–4 thereunder,² notice is hereby given that on April 1, 2015, EDGA Exchange, Inc. (the “Exchange” or “EDGA”) filed with the Securities and Exchange Commission (“Commission”) the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Exchange has designated this proposal as a “non-controversial” proposed rule change pursuant to Section 19(b)(3)(A) of the Act³ and Rule 19b–4(f)(6)(iii) thereunder,⁴ which renders it effective upon filing with the Commission. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization’s Statement of the Terms of the Substance of the Proposed Rule Change

The Exchange amend [sic] the content of the BATS One Feed under Rule 13.8(b) to include consolidated volume for all listed equity securities. The text of the proposed rule change is available at the Exchange’s Web site at www.batstrading.com, at the principal office of the Exchange, and at the Commission’s Public Reference Room.

II. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements

concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in Sections A, B, and C below, of the most significant parts of such statements.

A. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend the content of the BATS One Feed under Rule 13.8(b) to include consolidated volume for all listed equity securities. The Commission recently approved a proposed rule change by the Exchange to establish a new market data product called the BATS One Feed.⁵ The BATS One Feed is a data feed that disseminates, on a real-time basis, the aggregate best bid and offer (“BBO”) of all displayed orders for securities traded on EDGA and its affiliated exchanges⁶ and for which the BATS Exchanges reports quotes under the Consolidated Tape Association (“CTA”) Plan or the Nasdaq/UTP Plan.⁷

The last sale information disseminated as part of the BATS One Feed includes the price, size, time of execution, and individual BATS Exchange on which the trade was executed. The last sale information also includes the cumulative number of shares executed on all BATS Exchanges

⁵ See Securities Exchange Act Release No. 73918 (December 23, 2014), 79 FR 78920 (December 31, 2014) (File Nos. SR–EDGX–2014–25; SR–EDGA–2014–25; SR–BATS–2014–055; SR–BYX–2014–030) (Notice of Amendments No. 2 and Order Granting Accelerated Approval to Proposed Rule Changes, as Modified by Amendments Nos. 1 and 2, to Establish a New Market Data Product called the BATS One Feed) (“BATS One Approval Order”).

⁶ EDGA’s affiliated exchanges are the BATS Exchange, Inc. (“BZX”), the BATS Y-Exchange, Inc. (“BYX”), and the EDGX Exchange, Inc. (“EDGX”), together with EDGA, BZX, and BYX, the “BATS Exchanges”. On January 31, 2014, Direct Edge Holdings LLC (“DE Holdings”), the former parent company of the Exchange and EDGX, completed its business combination with BATS Global Markets, Inc., the parent company of BATS and BYX. See Securities Exchange Act Release No. 71449 (January 30, 2014), 79 FR 6961 (February 5, 2014) (SR–EDGX–2013–43, SR–EDGA–2013–34). Upon completion of the business combination, DE Holdings and BATS Global Markets, Inc. each became intermediate holding companies, held under a single new holding company. The new holding company, formerly named “BATS Global Markets Holdings, Inc.,” changed its name to “BATS Global Markets, Inc.”

⁷ The Exchange understands that each of the BATS Exchanges will separately file substantially similar proposed rule changes with the Commission to implement fees for the BATS One Feed.

¹ 17 CFR 200.30–3(a)(57).

² 15 U.S.C. 78s(b)(1).

³ 17 CFR 240.19b–4.

⁴ 15 U.S.C. 78s(b)(3)(A).

⁵ 17 CFR 240.19b–4(f)(6)(iii).

¹² 17 CFR 200.30–3(a)(12).

for that trading day.⁸ The Exchange now proposes to expand the last sale information to include consolidated volume for all listed equity securities regardless of where the transaction was executed. The Exchange would obtain the consolidated volume directly from the securities information processors and then distribute in a manner consistent with the requirements for redistributing such data as set forth in the CTA Plan and Nasdaq UTP Plan.⁹

2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act¹⁰ in general, and furthers the objectives of Section 6(b)(5) of the Act¹¹ in particular, in that it is designed to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest. The Exchange also believes that the proposed rule change is consistent with Section 11(A) of the Act¹² in that it supports (i) fair competition among brokers and dealers, among exchange markets, and between exchange markets and markets other than exchange markets and (ii) the availability to brokers, dealers, and investors of information with respect to quotations for and transactions in securities. Furthermore, the proposed rule change is consistent with Rule 603 of Regulation NMS,¹³ which provides that any national securities exchange that distributes information with respect

to quotations for or transactions in an NMS stock do so on terms that are not unreasonably discriminatory. In adopting Regulation NMS, the Commission granted self-regulatory organizations and broker-dealers increased authority and flexibility to offer new and unique market data products to the public. It was believed that this authority would expand the amount of data available to consumers, and also spur innovation and competition for the provision of market data.

The proposed rule change is designed to promote just and equitable principles of trade and remove impediments to and perfect the mechanism of a free and open market and a national market system by providing for the broader dissemination of consolidated volume to investors. The Exchange also believes this proposal is consistent with Section 6(b)(5) of the Act because it protects investors and the public interest and promotes just and equitable principles of trade by providing investors with new options for receiving consolidated volume. The Exchange also believes that the proposed rule change is reasonable because consolidated volume is currently included in a competing market data products offered by the NYSE and Nasdaq.¹⁴ Therefore, the Exchange believes the proposed rule change removes impediments to and perfects the mechanism of a free and open market and a national market system, and, in general, protects investors and the public interest.

Lastly, the proposal would not permit unfair discrimination because the consolidated volume will be available to all of the Exchange's customers and market data vendors on an equivalent basis. In addition, any customer that wishes to receive consolidated volume

via a different source will be able to do so.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposal will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. The Exchange believes that the proposed rule change will enhance competition because it would enable the Exchange to include consolidated volume as part of the BATS One Feed, thereby enabling it to better compete with similar market data products currently offered by the NYSE and Nasdaq that include such volume.¹⁵

Finally, although the BATS Exchanges are the exclusive distributors of the individual data feeds from which certain data elements would be taken to create the BATS One Feed, the Exchange is not the exclusive distributor of the consolidated volume that would be included in the BATS One Feed. A vendor seeking to offer a similar product and include consolidated volume would be able to do so on the same terms as the Exchange from a cost perspective. As discussed in the BATS One Approval Order,¹⁶ any entity may separately purchase the individual underlying products, and if they so choose, perform a similar aggregation and consolidation function that the Exchange performs in creating the BATS One Feed, and offer a data feed with the same information included in the BATS One Feed to sell and distribute it to its clients with no greater cost than the Exchange. Likewise, a competing vendor could also receive consolidated volume from the securities information processors and include it as part of their product to be disseminated to their customers under the same terms and policies provided to the Exchange.¹⁷ Therefore, the Exchange believes the inclusion of consolidated volume in the BATS One Feed would not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The Exchange has neither solicited nor received written comments on the proposed rule change.

¹⁵ See *id.* (noting that NYSE BQT and NLS Plus carry consolidated volume for all listed equities).

¹⁶ See BATS One Approval Order, *supra* note 5.

¹⁷ See CTA Consolidated Volume Display Policy, *supra* note 9.

⁸ The BATS One Feed also contains optional functionality which enables recipients to receive aggregated two-sided quotations from the BATS Exchanges for up to five (5) price levels for all securities that are traded on the BATS Exchanges in addition to the BATS One Summary Feed ("BATS One Premium Feed"). For each price level on one of the BATS Exchanges, the BATS One Premium Feed includes a two-sided quote and the number of shares available to buy and sell at that particular price level.

⁹ See CTA Consolidated Volume Display Policy available at <https://www.ctaplan.com> (dated March 2015). The CTA Consolidated Volume Display Policy requires that, "[i]f a Customer calculates the CTA Consolidated Volume and displays that alongside last sale prices or bid-asked quotes that are not consolidated prices or quotes under the CTA Plan or the CQ Plan, then the Customer must incorporate into its display the following statement: "Realtime quote and/or trade prices are not sourced from all markets." Customer must also assure that any person included in the redistribution chain starting with the Customer conspicuously places such a statement in any such display that it provides." *Id.*

¹⁰ 15 U.S.C. 78f(b).

¹¹ 15 U.S.C. 78f(b)(5).

¹² 15 U.S.C. 78k-1.

¹³ See 17 CFR 242.603.

¹⁴ See Securities Exchange Act Release No. 73553 (November 6, 2014), 79 FR 67491 (November 13, 2014) (SR-NYSE-2014-40) (Notice of Amendment No. 1 and Order Granting Accelerated Approval to a Proposed Rule Change, as Modified by Amendment No. 1, To Establish the NYSE Best Quote & Trades ("BQT") Data Feed); <http://www.nyxdata.com/Data-Products/NYSE-Best-Quote-and-Trades> (last visited May 27, 2014) (data feed providing unified view of BBO and last sale information for the NYSE, NYSE Arca, and NYSE MKT) ("NYSE BQT Approval Order"). See also Nasdaq Basic, <http://www.nasdaqtrader.com/Trader.aspx?id=nasdaqbasic> (last visited March 26, 2015) (data feed offering the BBO and Last Sale information for all U.S. exchange-listed securities based on liquidity within the Nasdaq market center, as well as trades reported to the FINRA/Nasdaq Trade Reporting Facility ("TRF")); and Nasdaq NLS Plus, <http://www.nasdaqtrader.com/Trader.aspx?id=NLSplus> (last visited July 8, 2014) (data feed providing last sale data as well as consolidated volume from the following Nasdaq OMX markets for U.S. exchange-listed securities: Nasdaq, FINRA/Nasdaq TRF, Nasdaq OMX BX, and Nasdaq OMX PSX).

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the proposed rule change does not (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate if consistent with the protection of investors and the public interest, the proposed rule change has become effective pursuant to Section 19(b)(3)(A) of the Act¹⁸ and Rule 19b-4(f)(6)(iii) thereunder.¹⁹

A proposed rule change filed pursuant to Rule 19b-4(f)(6) under the Act²⁰ normally does not become operative for 30 days after the date of its filing. However, Rule 19b-4(f)(6)(iii)²¹ permits the Commission to designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposal may become operative immediately upon filing. The Exchange believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest because it would allow the Exchange to timely offer investors a new option for receiving consolidated volume information. The Exchange further notes that other exchanges currently offer similar data products that include consolidated volume.²² The Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest. Therefore, the Commission hereby waives the operative delay and designates the proposed rule change operative upon filing.²³

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if

it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an email to rule-comments@sec.gov. Please include File Number SR-EDGA-2015-17 on the subject line.

Paper Comments

- Send paper comments in triplicate to Brent J. Fields, Secretary, Securities and Exchange Commission, 100 F Street NE., Washington, DC 20549-1090. All submissions should refer to File Number SR-EDGA-2015-17. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for Web site viewing and printing in the Commission's Public Reference Room, 100 F Street NE., Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of such filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-EDGA-

2015-17, and should be submitted on or before May 8, 2015.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.²⁴

Brent J. Fields,

Secretary.

[FR Doc. 2015-08794 Filed 4-16-15; 8:45 am]

BILLING CODE 8011-01-P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-74719; File No. SR-C2-2015-008]

Self-Regulatory Organizations; C2 Options Exchange, Incorporated; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Change the Close of Trading Hours on the Last Day of Trading in Expiring Quarterly Index Expirations

April 13, 2015.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"),¹ and Rule 19b-4 thereunder,² notice is hereby given that, on April 9, 2015 C2 Options Exchange, Incorporated (the "Exchange" or "C2") filed with the Securities and Exchange Commission ("SEC" or "Commission") the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Exchange filed the proposal as a "non-controversial" proposed rule change pursuant to Section 19(b)(3)(A)(iii) of the Act³ and Rule 19b-4(f)(6) thereunder.⁴ The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to amend C2 Rule 6.1 (Days and Hours of Business) to change the close of trading hours from 3:15 p.m. (Chicago time) to 3:00 p.m. (Chicago time) on the last day of trading in expiring Quarterly Index Expirations ("QIXs"). The text of the proposed rule change is available on the Exchange's Web site (<http://www.c2exchange.com/Legal/>), at the Exchange's Office of the Secretary, and at the Commission's Public Reference Room.

²⁴ 17 CFR 200.30-3(a)(12).

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ 15 U.S.C. 78s(b)(3)(A)(iii).

⁴ 17 CFR 240.19b-4(f)(6).

¹⁸ 15 U.S.C. 78s(b)(3)(A).

¹⁹ 17 CFR 240.19b-4(f)(6)(iii). As required under Rule 19b-4(f)(6)(iii), the Exchange provided the Commission with written notice of its intent to file the proposed rule change, along with a brief description and the text of the proposed rule change, at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission.

²⁰ 17 CFR 240.19b-4(f)(6).

²¹ 17 CFR 240.19b-4(f)(6)(iii).

²² See *supra* note 14 (noting that NYSE BQT and NLS Plus carry consolidated volume for all listed equities).

²³ For purposes only of waiving the 30-day operative delay, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. See 15 U.S.C. 78c(f).

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

This filing is based on existing Chicago Board Options Exchange, Incorporated ("CBOE") Rule 24.6.01.⁵

The majority of C2's Rules are the same as CBOE's Rules and were adopted as part of the Securities and Exchange Commission's ("SEC" or "Commission") order approving C2's application for registration as a national securities exchange.⁶ CBOE Rule 24.9(c) permits CBOE to list QIXs, which are cash-settled options on certain specified broad-based indices that expire on the

⁵ CBOE Rule 24.6.01 provides, "On the last trading day, transactions in expiring Quarterly Index Expirations (QIXs) may be effected on the Exchange during Extended Trading Hours and during the Regular Trading Hours of 8:30 a.m. (Chicago time) to 3:00 p.m. (Chicago time). This Interpretation and Policy .01 applies to all outstanding expiring QIXs that expire at the end of the second calendar quarter in 2009 and thereafter." See also Securities Exchange Act Release Nos. [sic] 59676 (April 1, 2009), 74 FR 16018 (April 8, 2009) (Notice of Filing and Immediate Effectiveness of Proposed Rule Change to Change the Close of Trading Hours on the Last Day of Trading in Expiring Quarterly Index Expirations) (SR-CBOE-2009-020).

⁶ See Securities Exchange Act Release No. 61152 (December 10, 2009), 74 FR 66699, 66709-10 (December 16, 2009) (In the Matter of the Application of C2 Options Exchange, Incorporated for Registration as a National Securities Exchange Findings, Opinion, and Order of the Commission (File No. 10-191)). In the Order, the Commission granted C2's request for exemption, pursuant to Section 36 of the Securities Exchange Act of 1934 (the "Act"), from the rule filing requirements of Section 19(b) of the Act with respect to the rules that C2 proposed to incorporate by reference. The exemption was conditioned upon C2 providing written notice to its members whenever CBOE proposes to change a rule that C2 has incorporated by reference. In the Order, the Commission stated its belief that "this exemption is appropriate in the public interest and consistent with the protection of investors because it will promote more efficient use of Commission and SRO resources by avoiding duplicative rule filings based on simultaneous changes to identical rules sought by more than one SRO."

first business day of the month following the end of a calendar quarter. QIXs trade simultaneously with, not independent of, standard options on the same underlying index. QIXs are subject to the same rules that currently govern the trading of standard index options, including sales practice rules, margin requirements, and floor trading proceedings. Contract terms for QIXs are similar to traditional index options, with one general exception: the exercise settlement value is based on the index value derived from the closing prices of component stocks. In addition, the contract multiplier for QIXs may be set at 500 rather than the customary 100. Positions in QIXs are aggregated with option contracts on the same broad-based index and are subject to the applicable overall position limit.

C2 Chapter 24 provides, in relevant part, "[t]he rules contained in CBOE Chapter XXIV, as such rules may be in effect from time to time, shall apply to C2 and are hereby incorporated into this Chapter." Accordingly, C2 may list QIXs. However, C2 Chapter 24, in relevant part, expressly provides that certain Rules from CBOE Chapter XXIV shall not apply to C2, including CBOE Rule 24.6 (Days and Hours of Business). CBOE Rule 24.6 has a provision that permits the Exchange to close trading in expiring QIXs at 3:00 p.m. (Chicago time), which C2 now proposes to add as new Interpretation and Policy .03 to C2 Rule 6.1.

In support of this rule change, C2 states that generally, QIXs are priced in the market based on corresponding futures values. On the last day of trading, the closing prices of the component stocks (which are used to derive the exercise settlement value) are known at 3 p.m. (Chicago time) (or soon after) when the equity markets close. Despite the fact that the exercise settlement value is fixed after 3 p.m. (Chicago time), trading in expiring QIXs continues, however, for an additional fifteen minutes until 3:15 p.m. (Chicago time) and are not priced on corresponding futures values, but rather the known cash value. At the same time, the prices of non-expiring QIX series continue to move and be priced in response to changes in corresponding futures prices.

Because of the potential pricing divergence that could occur between 3:00 and 3:15 p.m. on the final trading day in expiring QIXs (e.g., switch from pricing off of futures to cash), the Exchange believes that, in order to mitigate potential investor confusion, it is appropriate to stop trading expiring QIX contracts at 3 p.m. (Chicago time) on the last day of trading. C2 notes that,

as of the date of this filing, there are no outstanding QIXs currently listed for trading on C2.

2. Statutory Basis

The Exchange believes the proposed rule change is consistent with the Act⁷ and the rules and regulations thereunder and, in particular, the requirements of Section 6(b) of the Act.⁸ Specifically, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)⁹ requirements that the rules of an exchange be designed to promote just and equitable principles of trade, to prevent fraudulent and manipulative acts, to remove impediments to and to perfect the mechanism for a free and open market and a national market system, and, in general, to protect investors and the public interest. Preventing continued trading in a product after the exercise settlement value has been fixed eliminates potential confusion and thereby protects investors and the public interest.

B. Self-Regulatory Organization's Statement on Burden on Competition

This proposed rule change does not impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. In this regard and as indicated above, the Exchange notes that the rule change is based on existing CBOE Rules. Closing expiring QIXs listed on C2 at 3:00 p.m. (Chicago time) on their last trading day will align this practice with the existing practice on CBOE.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The Exchange neither solicited nor received written comments on the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not:

- A. Significantly affect the protection of investors or the public interest;
- B. impose any significant burden on competition; and

C. become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the

⁷ 15 U.S.C. 78s(b)(1).

⁸ 15 U.S.C. 78f(b).

⁹ 15 U.S.C. 78f(b)(5).

Act¹⁰ and Rule 19b-4(f)(6)¹¹ thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission will institute proceedings to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an email to rule-comments@sec.gov. Please include File Number SR-C2-2015-008 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE., Washington, DC 20549-1090. All submissions should refer to File Number SR-C2-2015-008. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for Web site viewing and printing in the Commission's Public Reference Room, 100 F Street NE., Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for

inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-C2-2015-008 and should be submitted on or before May 8, 2015.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.¹²

Brent J. Fields,
Secretary.

[FR Doc. 2015-08796 Filed 4-16-15; 8:45 am]

BILLING CODE 8011-01-P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-74716; File No. SR-EDGX-2015-17]

Self-Regulatory Organizations; EDGX Exchange, Inc.; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend the Content of the BATS One Feed Under Rule 13.8(b) To Include Consolidated Volume for All Listed Equity Securities

April 13, 2015.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the "Act"),¹ and Rule 19b-4 thereunder,² notice is hereby given that on April 1, 2015, EDGX Exchange, Inc. (the "Exchange" or "EDGX") filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Exchange has designated this proposal as a "non-controversial" proposed rule change pursuant to Section 19(b)(3)(A) of the Act³ and Rule 19b-4(f)(6)(iii) thereunder,⁴ which renders it effective upon filing with the Commission. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of the Substance of the Proposed Rule Change

The Exchange amend [sic] the content of the BATS One Feed under Rule 13.8(b) to include consolidated volume for all listed equity securities. The text of the proposed rule change is available

at the Exchange's Web site at www.batstrading.com, at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in Sections A, B, and C below, of the most significant parts of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend the content of the BATS One Feed under Rule 13.8(b) to include consolidated volume for all listed equity securities. The Commission recently approved a proposed rule change by the Exchange to establish a new market data product called the BATS One Feed.⁵ The BATS One Feed is a data feed that disseminates, on a real-time basis, the aggregate best bid and offer ("BBO") of all displayed orders for securities traded on EDGX and its affiliated exchanges⁶ and for which the BATS Exchanges reports quotes under the Consolidated

⁵ See Securities Exchange Act Release No. 73918 (December 23, 2014), 79 FR 78920 (December 31, 2014) (File Nos. SR-EDGX-2014-25; SR-EDGA-2014-25; SR-BATS-2014-055; SR-BYX-2014-030) (Notice of Amendments No. 2 and Order Granting Accelerated Approval to Proposed Rule Changes, as Modified by Amendments Nos. 1 and 2, to Establish a New Market Data Product called the BATS One Feed) ("BATS One Approval Order").

⁶ EDGX's affiliated exchanges are the BATS Exchange, Inc. ("BZX"), the BATS Y-Exchange, Inc. ("BYX"), and the EDGA Exchange, Inc. ("EDGA"), together with EDGX, BZX, and BYX, the "BATS Exchanges"). On January 31, 2014, Direct Edge Holdings LLC ("DE Holdings"), the former parent company of the Exchange and EDGA, completed its business combination with BATS Global Markets, Inc., the parent company of BATS and BYX. See Securities Exchange Act Release No. 71449 (January 30, 2014), 79 FR 6961 (February 5, 2014) (SR-EDGX-2013-43, SR-EDGA-2013-34). Upon completion of the business combination, DE Holdings and BATS Global Markets, Inc. each became intermediate holding companies, held under a single new holding company. The new holding company, formerly named "BATS Global Markets Holdings, Inc.," changed its name to "BATS Global Markets, Inc."

¹² 17 CFR 200.30-3(a)(12).

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ 15 U.S.C. 78s(b)(3)(A).

⁴ 17 CFR 240.19b-4(f)(6)(iii).

¹⁰ 15 U.S.C. 78s(b)(3)(A).

¹¹ 17 CFR 240.19b-4(f)(6).

Tape Association (“CTA”) Plan or the Nasdaq/UTP Plan.⁷

The last sale information disseminated as part of the BATS One Feed includes the price, size, time of execution, and individual BATS Exchange on which the trade was executed. The last sale information also includes the cumulative number of shares executed on all BATS Exchanges for that trading day.⁸ The Exchange now proposes to expand the last sale information to include consolidated volume for all listed equity securities regardless of where the transaction was executed. The Exchange would obtain the consolidated volume directly from the securities information processors and then distribute in a manner consistent with the requirements for redistributing such data as set forth in the CTA Plan and Nasdaq UTP Plan.⁹

2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act¹⁰ in general, and furthers the objectives of Section 6(b)(5) of the Act¹¹ in particular, in that it is designed to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest. The Exchange also believes that the proposed rule change is consistent with Section 11(A) of the Act¹² in that it supports (i) fair

competition among brokers and dealers, among exchange markets, and between exchange markets and markets other than exchange markets and (ii) the availability to brokers, dealers, and investors of information with respect to quotations for and transactions in securities. Furthermore, the proposed rule change is consistent with Rule 603 of Regulation NMS,¹³ which provides that any national securities exchange that distributes information with respect to quotations for or transactions in an NMS stock do so on terms that are not unreasonably discriminatory. In adopting Regulation NMS, the Commission granted self-regulatory organizations and broker-dealers increased authority and flexibility to offer new and unique market data products to the public. It was believed that this authority would expand the amount of data available to consumers, and also spur innovation and competition for the provision of market data.

The proposed rule change is designed to promote just and equitable principles of trade and remove impediments to and perfect the mechanism of a free and open market and a national market system by providing for the broader dissemination of consolidated volume to investors. The Exchange also believes this proposal is consistent with Section 6(b)(5) of the Act because it protects investors and the public interest and promotes just and equitable principles of trade by providing investors with new options for receiving consolidated volume. The Exchange also believes that the proposed rule change is reasonable because consolidated volume is currently included in a competing market data products offered by the NYSE and Nasdaq.¹⁴ Therefore, the

Exchange believes the proposed rule change removes impediments to and perfects the mechanism of a free and open market and a national market system, and, in general, protects investors and the public interest.

Lastly, the proposal would not permit unfair discrimination because the consolidated volume will be available to all of the Exchange’s customers and market data vendors on an equivalent basis. In addition, any customer that wishes to receive consolidated volume via a different source will be able to do so.

B. Self-Regulatory Organization’s Statement on Burden on Competition

The Exchange does not believe that the proposal will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. The Exchange believes that the proposed rule change will enhance competition because it would enable the Exchange to include consolidated volume as part of the BATS One Feed, thereby enabling it to better compete with similar market data products currently offered by the NYSE and Nasdaq that include such volume.¹⁵

Finally, although the BATS Exchanges are the exclusive distributors of the individual data feeds from which certain data elements would be taken to create the BATS One Feed, the Exchange is not the exclusive distributor of the consolidated volume that would be included in the BATS One Feed. A vendor seeking to offer a similar product and include consolidated volume would be able to do so on the same terms as the Exchange from a cost perspective. As discussed in the BATS One Approval Order,¹⁶ any entity may separately purchase the individual underlying products, and if they so choose, perform a similar aggregation and consolidation function that the Exchange performs in creating the BATS One Feed, and offer a data feed with the same information included in the BATS One Feed to sell and distribute it to its clients with no greater cost than the Exchange. Likewise, a competing vendor could also receive consolidated volume from the securities information processors and include it as part of their product to be disseminated to their customers under the same terms and policies provided to the Exchange.¹⁷ Therefore, the Exchange believes the inclusion of

⁷ The Exchange understands that each of the BATS Exchanges will separately file substantially similar proposed rule changes with the Commission to implement fees for the BATS One Feed.

⁸ The BATS One Feed also contains optional functionality which enables recipients to receive aggregated two-sided quotations from the BATS Exchanges for up to five (5) price levels for all securities that are traded on the BATS Exchanges in addition to the BATS One Summary Feed (“BATS One Premium Feed”). For each price level on one of the BATS Exchanges, the BATS One Premium Feed includes a two-sided quote and the number of shares available to buy and sell at that particular price level.

⁹ See CTA Consolidated Volume Display Policy available at <https://www.ctaplan.com> (dated March 2015). The CTA Consolidated Volume Display Policy requires that, “[i]f a Customer calculates the CTA Consolidated Volume and displays that alongside last sale prices or bid-asked quotes that are not consolidated prices or quotes under the CTA Plan or the CQ Plan, then the Customer must incorporate into its display the following statement: “Realtime quote and/or trade prices are not sourced from all markets.” Customer must also assure that any person included in the redistribution chain starting with the Customer conspicuously places such a statement in any such display that it provides.” *Id.*

¹⁰ 15 U.S.C. 78f(b).

¹¹ 15 U.S.C. 78f(b)(5).

¹² 15 U.S.C. 78k-1.

¹³ See 17 CFR 242.603.

¹⁴ See Securities Exchange Act Release No. 73553 (November 6, 2014), 79 FR 67491 (November 13, 2014) (SR-NYSE-2014-40) (Notice of Amendment No. 1 and Order Granting Accelerated Approval to a Proposed Rule Change, as Modified by Amendment No. 1, To Establish the NYSE Best Quote & Trades (“BQT”) Data Feed); <http://www.nyxdata.com/Data-Products/NYSE-Best-Quote-and-Trades> (last visited May 27, 2014) (data feed providing unified view of BBO and last sale information for the NYSE, NYSE Arca, and NYSE MKT) (“NYSE BQT Approval Order”). See also Nasdaq Basic, <http://www.nasdaqtrader.com/Trader.aspx?id=nasdaqbasic> (last visited March 26, 2015) (data feed offering the BBO and Last Sale information for all U.S. exchange-listed securities based on liquidity within the Nasdaq market center, as well as trades reported to the FINRA/Nasdaq Trade Reporting Facility (“TRF”)); and Nasdaq NLS Plus, <http://www.nasdaqtrader.com/Trader.aspx?id=NLSplus> (last visited July 8, 2014) (data feed providing last sale data as well as consolidated volume from the following Nasdaq OMX markets for U.S. exchange-listed securities: Nasdaq, FINRA/Nasdaq TRF, Nasdaq OMX BX, and Nasdaq OMX PSX).

¹⁵ See *id.* (noting that NYSE BQT and NLS Plus carry consolidated volume for all listed equities).

¹⁶ See BATS One Approval Order, *supra* note 5.

¹⁷ See CTA Consolidated Volume Display Policy, *supra* note 9.

consolidated volume in the BATS One Feed would not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The Exchange has neither solicited nor received written comments on the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the proposed rule change does not (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate if consistent with the protection of investors and the public interest, the proposed rule change has become effective pursuant to Section 19(b)(3)(A) of the Act¹⁸ and Rule 19b-4(f)(6)(iii) thereunder.¹⁹

A proposed rule change filed pursuant to Rule 19b-4(f)(6) under the Act²⁰ normally does not become operative for 30 days after the date of its filing. However, Rule 19b-4(f)(6)(iii)²¹ permits the Commission to designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposal may become operative immediately upon filing. The Exchange believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest because it would allow the Exchange to timely offer investors a new option for receiving consolidated volume information. The Exchange further notes that other exchanges currently offer similar data products that include consolidated volume.²² The Commission believes that waiving the 30-day operative delay is consistent

with the protection of investors and the public interest. Therefore, the Commission hereby waives the operative delay and designates the proposed rule change operative upon filing.²³

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an email to rule-comments@sec.gov. Please include File Number SR-EDGX-2015-17 on the subject line.

Paper Comments

- Send paper comments in triplicate to Brent J. Fields, Secretary, Securities and Exchange Commission, 100 F Street NE., Washington, DC 20549-1090.

All submissions should refer to File Number SR-EDGX-2015-17. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for Web site viewing and

printing in the Commission's Public Reference Room, 100 F Street NE., Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of such filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-EDGX-2015-17, and should be submitted on or before May 8, 2015.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.²⁴

Brent J. Fields,

Secretary.

[FR Doc. 2015-08793 Filed 4-16-15; 8:45 am]

BILLING CODE 8011-01-P

SMALL BUSINESS ADMINISTRATION

Council on Underserved Communities, Renewal

AGENCY: U.S. Small Business Administration (SBA).

ACTION: Notice of renewal of Council on Underserved Communities.

SUMMARY: Pursuant to the Federal Advisory Committee Act and its implementing regulations, SBA is issuing this notice to announce the renewal of its Council on Underserved Communities. This advisory committee is being renewed to help the agency identify and address needs of small businesses in underserved urban and rural communities.

FOR FURTHER INFORMATION CONTACT: Questions about the Council on Underserved Communities may be directed to Miguel L'Heureux, telephone (202) 205-6605, fax (202) 741-6670, email miguel.lheureux@sba.gov or mail, U.S. Small Business Administration, 409 3rd Street SW., 7th Floor, Washington, DC 20416.

SUPPLEMENTARY INFORMATION: Pursuant to its authority in section 8(b)(13) of the Small Business Act, (15 U.S.C. 637(b)), SBA is renewing the Council on Underserved Communities. This discretionary committee is being renewed in accordance with the provisions of the Federal Advisory Committee Act, as amended (5 U.S.C. App.).

The Council provides advice, ideas and opinions on SBA programs and

¹⁸ 15 U.S.C. 78s(b)(3)(A).

¹⁹ 17 CFR 240.19b-4(f)(6)(iii). As required under Rule 19b-4(f)(6)(iii), the Exchange provided the Commission with written notice of its intent to file the proposed rule change, along with a brief description and the text of the proposed rule change, at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission.

²⁰ 17 CFR 240.19b-4(f)(6).

²¹ 17 CFR 240.19b-4(f)(6)(iii).

²² See *supra* note 14 (noting that NYSE BQT and NLS Plus carry consolidated volume for all listed equities).

²³ For purposes only of waiving the 30-day operative delay, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. See 15 U.S.C. 78c(f).

²⁴ 17 CFR 200.30-3(a)(12).

services and issues of interest to small businesses in underserved communities. Its members provide an essential connection between SBA and small businesses in inner city and rural communities. The Council's scope of activities includes reviewing SBA current programs and policies, while working towards creating new and insightful place-based initiatives to spur economic growth, job creation, competitiveness, and sustainability.

Council members bring a number of important points of views to the Council: An understanding of the barriers to success for small business owners in underserved communities; experience working in and operating businesses in urban and rural underserved communities; challenges regarding access to capital; knowledge and experience in training and counseling entrepreneurs in underserved communities; and associations representing owners of small business in underserved communities.

The Council has a total of twenty (20) members, 19 members-at-large and one Chair. Members consist of current or former small business owners, community leaders, officials from small business trade associations, and academic institutions. Members represent the interests of underserved communities across the country, both rural and urban.

Dated: April 9, 2015.

Miguel L'Heureux,

SBA Committee Management Officer.

[FR Doc. 2015-08705 Filed 4-16-15; 8:45 am]

BILLING CODE 8025-01-P

SOCIAL SECURITY ADMINISTRATION

[Docket No. SSA-2015-0021]

Public Availability of Social Security Administration Fiscal Year (FY) 2014 Service Contract Inventory

AGENCY: Social Security Administration.

ACTION: Notice of Public Availability of FY 2014 Service Contract Inventories.

SUMMARY: In accordance with Section 743 of Division C of the Consolidated Appropriations Act of 2010 (Pub. L. 111-117), we are publishing this notice to advise the public of the availability of the FY 2014 Service Contract inventory. This inventory provides information on FY 2014 service contract actions over \$25,000. We organized the information by function to show how we distribute contracted resources throughout the agency. We developed the inventory in accordance with

guidance issued on November 5, 2010 by the Office of Management and Budget's Office of Federal Procurement Policy (OFPP). OFPP's guidance is available at <http://www.whitehouse.gov/sites/default/files/omb/procurement/memo/service-contract-inventories-guidance-11052010.pdf>. You can access the inventory and summary of the inventory on our homepage at the following link: <http://www.socialsecurity.gov/sci>.

FOR FURTHER INFORMATION CONTACT:

Mark Ploss, Office of Budget, Social Security Administration, 6401 Security Boulevard, Baltimore, MD 21235-6401. Phone (410) 965-4688, email Mark.Ploss@SSA.gov.

Patrick Perzan,

Deputy Associate Commissioner, Office of Budget, Office of Budget, Finance, Quality, and Management.

[FR Doc. 2015-08809 Filed 4-16-15; 8:45 am]

BILLING CODE 4191-02-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Notice of Submission Deadline for Schedule Information for Los Angeles International Airport, O'Hare International Airport, San Francisco International Airport, John F. Kennedy International Airport, and Newark Liberty International Airport for the Winter 2015 Scheduling Season

AGENCY: Federal Aviation Administration (FAA), Department of Transportation.

ACTION: Notice of submission deadline.

SUMMARY: Under this notice, the FAA announces the submission deadline of May 21, 2015, for winter 2015-2016 flight schedules at Los Angeles International Airport (LAX), Chicago's O'Hare International Airport (ORD), San Francisco International Airport (SFO), New York's John F. Kennedy International Airport (JFK), and Newark Liberty International Airport (EWR) in accordance with the International Air Transport Association (IATA) Worldwide Slot Guidelines. The deadline coincides with the schedule submission deadline for the IATA Slot Conference for the winter 2015 scheduling season.

SUPPLEMENTARY INFORMATION: The FAA has designated LAX, ORD, and SFO as IATA Level 2 airports and JFK and EWR as IATA Level 3 airports. The FAA currently limits scheduled operations at JFK and EWR by Order until a final Slot Management and Transparency Rule for

LaGuardia Airport, John F. Kennedy International Airport, and Newark Liberty International Airport (RIN 2120-AJ89) becomes effective but not later than October 29, 2016.¹

The FAA is primarily concerned about planned passenger and cargo operations and other regularly conducted commercial operations during peak hours, but carriers may submit schedule plans for the entire day. At ORD, the peak hours are 0700 to 2100 Central Time (1300 to 0300 UTC), at LAX and SFO from 0600 to 2300 Pacific Time (1400 to 0700 UTC), and at EWR and JFK from 0600 to 2300 Eastern Time (1100 to 0400 UTC). Carriers should submit schedule information in sufficient detail including, at a minimum, the operating carrier, flight number, scheduled time of operation, frequency, and effective dates. IATA standard schedule information format and data elements (Standard Schedules Information Manual or SSIM) may be used.

The U.S. winter scheduling season for these airports is from October 25, 2015, through March 26, 2016, in recognition of the IATA northern winter period. The FAA understands there may be differences in slot times due to different U.S. daylight saving time dates and will accommodate these differences to the extent possible.

At LAX, there will be runway construction during the winter scheduling season. The FAA is reviewing the potential changes to the runway capacity and other operational impacts of the construction projects.

DATES: Schedules must be submitted no later than May 21, 2015.

ADDRESSES: Schedules may be submitted by mail to the Slot Administration Office, AGC-200, Office of the Chief Counsel, 800 Independence Avenue SW., Washington, DC 20591; facsimile: 202-267-7277; or by email to: 7-AWA-slotadmin@faa.gov.

FOR FURTHER INFORMATION CONTACT: Susan Pfingstler, System Operations Services, Air Traffic Organization, Federal Aviation Administration, 600 Independence Avenue SW., Washington, DC 20591; telephone number: 202-267-6462; email: susan.pfingstler@faa.gov.

¹ Operating Limitations at John F. Kennedy International Airport, 73 FR 3510 (Jan. 18, 2008) as amended 79 FR 16854 (March 26, 2014); Operating Limitations at Newark Liberty International Airport, 73 FR 29550 (May 21, 2008) as amended 79 FR 16857 (March 26, 2014).

Issued in Washington, DC, on April 10, 2015.

Mark W. Bury,

Assistant Chief Counsel for Regulations.

[FR Doc. 2015-08927 Filed 4-16-15; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Membership in the National Parks Overflights Advisory Group Aviation Rulemaking Committee

AGENCY: Federal Aviation Administration, Department of Transportation.

ACTION: Notice.

SUMMARY: The Federal Aviation Administration (FAA) and the National Park Service (NPS) are inviting interested persons to apply to fill three upcoming openings on the National Parks Overflights Advisory Group (NPOAG) Aviation Rulemaking Committee (ARC). The openings will represent general aviation concerns, air tour operator concerns, and Native American interests, respectively. Selected members will each serve 3-year terms.

DATES: Persons interested in applying for the NPOAG openings need to apply by May 29, 2015.

FOR FURTHER INFORMATION CONTACT: Keith Lusk, Special Programs Staff, Federal Aviation Administration, Western-Pacific Region Headquarters, P.O. Box 92007, Los Angeles, CA 90009-2007, telephone: (310) 725-3808, email: Keith.Lusk@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The National Parks Air Tour Management Act of 2000 (the Act) was enacted on April 5, 2000, as Public Law 106-181. The Act required the establishment of the advisory group within 1 year after its enactment. The NPOAG was established in March 2001. The advisory group is comprised of a balanced group of representatives of general aviation, commercial air tour operations, environmental concerns, and Native American tribes. The Administrator of the FAA and the Director of NPS (or their designees) serve as ex officio members of the group. Representatives of the Administrator and Director serve alternating 1-year terms as chairman of the advisory group.

In accordance with the Act, the advisory group provides "advice,

information, and recommendations to the Administrator and the Director—

(1) On the implementation of this title [the Act] and the amendments made by this title;

(2) On commonly accepted quiet aircraft technology for use in commercial air tour operations over a national park or tribal lands, which will receive preferential treatment in a given air tour management plan;

(3) On other measures that might be taken to accommodate the interests of visitors to national parks; and

(4) At the request of the Administrator and the Director, safety, environmental, and other issues related to commercial air tour operations over a national park or tribal lands."

Membership

The NPOAG ARC is made up of one member representing general aviation, three members representing the commercial air tour industry, four members representing environmental concerns, and two members representing Native American interests. Current members of the NPOAG ARC are as follows:

The current NPOAG consists of Heidi Williams representing general aviation; Alan Stephen, Mark Francis, and Matthew Zuccaro representing commercial air tour operators; Michael Sutton, Mark Belles, Nicholas Miller, and Dick Hingson representing environmental interests; and Leigh Kuwanwisiwma and Martin Begaye representing Native American interests. The 3-year membership terms of Ms. Williams, Mr. Stephen, and Mr. Begaye expire on October 9, 2015.

Selection

In order to retain balance within the NPOAG ARC, the FAA and NPS are seeking candidates interested in filling the three soon to be expiring seats. The three seats to be filled will represent general aviation concerns, air tour operator concerns, and Native American interests, respectively. The FAA and NPS invite persons interested in serving on the ARC to contact Mr. Keith Lusk (contact information is written above in **FOR FURTHER INFORMATION CONTACT**). Requests to serve on the ARC must be made to Mr. Lusk in writing and postmarked or emailed on or before May 29, 2015. The request should indicate whether or not you are a member of an association or group related to general aviation or air tour operations or a member of a Native American tribe or have another affiliation with issues relating to aircraft flights over national parks. The request should also state what expertise you would bring to the

NPOAG ARC as related to these issues and concerns. The term of service for NPOAG ARC members is 3 years. Current members may re-apply for another term.

On June 18, 2010, President Obama signed a Presidential Memorandum directing agencies in the Executive Branch not to appoint or re-appoint federally registered lobbyists to advisory committees and other boards and commissions. Therefore, before appointing an applicant to serve on the NPOAG, the FAA and NPS will require the prospective candidate to certify that they are not a federally registered lobbyist.

Issued in Hawthorne, CA, on April 9, 2015.

Keith Lusk,

Program Manager, Special Programs Staff, Western-Pacific Region.

[FR Doc. 2015-08767 Filed 4-16-15; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Motor Carrier Safety Administration

[Docket No. FMCSA-2015-0111]

Parts and Accessories Necessary for Safe Operation; Application for an Exemption From Ford Motor Company

AGENCY: Federal Motor Carrier Safety Administration (FMCSA), DOT.

ACTION: Notice of application for exemption; request for comments.

SUMMARY: FMCSA requests public comment on an application for exemption from Ford Motor Company (Ford) to allow motor carriers to operate Ford's Transit commercial motor vehicles (CMVs) that do not meet the exhaust system location requirements in the Federal Motor Carrier Safety Regulations (FMCSR). The FMCSRs require (1) the exhaust system of a bus powered by a gasoline engine to discharge to the atmosphere at or within 6 inches forward of the rear most part of the bus and (2) the exhaust system of every truck and truck tractor to discharge to the atmosphere at a location to the rear of the cab or, if the exhaust projects above the cab, at a location near the rear of the cab. Based on the results of performance-based tests it has conducted to measure the concentration of carbon monoxide (CO) in the occupant compartment of the Transit-based CMVs, Ford believes that the location of the exhaust system on these vehicles, as currently designed, will maintain a level of safety that is equivalent to, or greater than, the level of safety achieved without the

exemption. Ford is requesting the temporary exemption in advance of petitioning FMCSA to conduct a rulemaking to amend 49 CFR 393.83.

DATES: Comments must be received on or before May 18, 2015.

ADDRESSES: You may submit comments bearing the Federal Docket Management System (FDMS) Docket ID FMCSA–2015–0111 using any of the following methods:

- *Web site:* <http://www.regulations.gov>.

Follow the instructions for submitting comments on the Federal electronic docket site.

- *Fax:* 1–202–493–2251.

- *Mail:* Docket Management Facility, U.S. Department of Transportation, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC 20590–0001.

- *Hand Delivery:* Ground Floor, Room W12–140, DOT Building, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m. e.t., Monday–Friday, except Federal holidays.

Instructions: All submissions must include the Agency name and docket number for this notice. For detailed instructions on submitting comments and additional information on the exemption process, see the “Public Participation” heading below. Note that all comments received will be posted without change to <http://www.regulations.gov>, including any personal information provided. Please see the “Privacy Act” heading for further information.

Docket: For access to the docket to read background documents or comments received, go to <http://www.regulations.gov> or to Room W12–140, DOT Building, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Privacy Act: In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to www.regulations.gov, as described in the system of records notice (DOT/ALL–14 FDMS), which can be reviewed at www.dot.gov/privacy.

Public participation: The <http://www.regulations.gov> Web site is generally available 24 hours each day, 365 days each year. You may find electronic submission and retrieval help and guidelines under the “help” section of the <http://www.regulations.gov> Web site as well as the DOT’s <http://docketsinfo.dot.gov> Web site. If you would like notification that we received your comments, please include a self-

addressed, stamped envelope or postcard or print the acknowledgment page that appears after submitting comments online.

FOR FURTHER INFORMATION CONTACT: Mr. Luke W. Loy, Vehicle and Roadside Operations Division, Office of Bus and Truck Standards and Operations, MC–PSV, (202) 366–0676; Federal Motor Carrier Safety Administration, 1200 New Jersey Avenue SE., Washington, DC 20590–0001.

SUPPLEMENTARY INFORMATION:

Background

Section 4007 of the Transportation Equity Act for the 21st Century (TEA–21) [Pub. L. 105–178, June 9, 1998, 112 Stat. 401] amended 49 U.S.C. 31315 and 31136(e) to provide authority to grant exemptions from the Federal Motor Carrier Safety Regulations (FMCSRs). On August 20, 2004, FMCSA published a final rule (69 FR 51589) implementing section 4007. Under this rule, FMCSA must publish a notice of each exemption request in the **Federal Register** (49 CFR 381.315(a)). The Agency must provide the public with an opportunity to inspect the information relevant to the application, including any safety analyses that have been conducted. The Agency must also provide an opportunity for public comment on the request.

The Agency reviews the safety analyses and the public comments and determines whether granting the exemption would likely achieve a level of safety equivalent to or greater than the level that would be achieved by the current regulation (49 CFR 381.305). The decision of the Agency must be published in the **Federal Register** (49 CFR 381.315(b)). If the Agency denies the request, it must state the reason for doing so. If the decision is to grant the exemption, the notice must specify the person or class of persons receiving the exemption and the regulatory provision or provisions from which an exemption is granted. The notice must specify the effective period of the exemption (up to 2 years) and explain the terms and conditions of the exemption. The exemption may be renewed (49 CFR 381.315(c) and 49 CFR 381.300(b)).

Ford Application for Exemption

Ford applied for an exemption from 49 CFR 393.83 to allow motor carriers to operate Ford-manufactured Transit-based CMVs that do not comply with the regulation’s exhaust system location requirements. A copy of the application is included in the docket referenced at the beginning of this notice.

Section 393.83 of the FMCSRs, “Exhaust systems,” includes

requirements regarding the location of exhaust systems on CMVs to ensure that exhaust fumes will not affect the driver’s alertness or health or the health of passengers. Specifically, section 393.83(c) states that “The exhaust system of a bus powered by a gasoline engine shall discharge to the atmosphere at or within 6 inches forward of the rearmost part of the bus,” and section 393.83(e) provides that “The exhaust system of every truck and truck tractor shall discharge to the atmosphere at a location to the rear of the cab or, if the exhaust projects above the cab, at a location near the rear of the cab.” However, the exhaust system on Ford Transit vehicles for Model Year 2015 and newer is located approximately (1) 20 inches forward of the rearmost part of the medium/long wheelbase bus or van (truck) configuration, and (2) 46 inches forward of the rearmost part of the extended length bus or van (truck) configuration.

In its application, Ford notes that while its Transit-based CMVs may not satisfy the specific exhaust system location requirements in the FMCSRs, it has several internal requirements applicable to the design of the tailpipe system that ensure the system will provide high levels of safety for its customers. Specifically, Ford states:

In particular, Ford’s requirements address passenger compartment exhaust gas intrusion and management of high temperature components. These requirements include testing of the system and basic design requirements for the location of the tailpipe in relation to underbody components like the brake lines and fuel lines.

Most significantly Ford uses internal performance based tests that demonstrate the system achieves a level of safety equivalent to or greater than, the level of safety that would be obtained by complying with the regulation. The main test of interest is the Carbon Monoxide Concentration test. This performance based test uses CO monitors at various locations in the vehicle to measure the concentration of CO ingress into the occupant compartment (from vehicles’ own powertrain and exhaust system) under various driving conditions including idle and top speed.

Ford tested the 2015 model year Transit in accordance with “Ford global common engineering test procedures,” which limits carbon monoxide (CO) levels to 27 parts-per-million (ppm) for a 30 minute Time Weighted Average (TWA) during continuous driving. Ford states that that limit is based on the Environmental Protection Agency’s (EPA) Acute Exposure Guideline Level limits for CO exposure for 8 hour TWA, which is more severe than both the Occupational Safety & Health Administration’s (OSHA) permissible

exposure limit of 50 ppm for an 8 hour TWA and the National Institute of Occupational Safety and Health's (NIOSH) permissible exposure limit of 35 ppm for a 10 hour TWA. Under "worst-case conditions," Ford measured the CO level to be 17 ppm for the Model year 2015 Transit, well below the EPA, OSHA, and NIOSH limits.

Additionally Ford states that it has internal requirements to establish the appropriate clearance required between a vehicle and the ground to meet a minimum level of on-road functionality. Ford has specific departure angle requirements for their vehicle to reduce tailpipe contact with the ground, curbs, ramps, etc., during various driving modes which may result in damage to the exhaust system that may adversely affect the exhaust function. Ford implied that the tailpipe placement used on its 2015 and future Transit-based passenger vehicles protects the exhaust system from operational damage that might expose passengers to dangerous levels of exhaust gases.

The exemption application would apply to Model Year 2015 Transit-based gas bus models (all gross vehicle weight ratings), vans over 10,000 pounds gross vehicle weight rating, and corresponding future Transit-based production model years. Ford estimates the annual production of these vehicles to be similar to the current Ford Econoline vehicle, which is less than 50,000 vehicles annually.

Ford acknowledges that the exhaust system location requirements in section 393.83 are intended to ensure that exhaust gases do not seep into the passenger compartment of the vehicle. However, Ford believes that the performance-based testing that it has conducted demonstrates that the design of the exhaust system for the Model Year 2015 and later Ford Transit CMVs (1) results in CO exposure limits that are well below EPA, OSHA, and NIOSH established thresholds, and (2) will maintain a level of safety that is equivalent to the level of safety achieved without the exemption.

Request for Comments

In accordance with 49 U.S.C. 31315 and 31136(e), FMCSA requests public comment from all interested persons on Ford's application for an exemption from 49 CFR 393.83. All comments received before the close of business on the comment closing date indicated at the beginning of this notice will be considered and will be available for examination in the docket at the location listed under the **ADDRESSES** section of this notice.

Comments received after the comment closing date will be filed in the public docket and will be considered to the extent practicable. In addition to late comments, FMCSA will continue to file relevant information in the public docket that becomes available after the comment closing date. Interested persons should continue to examine the public docket for new material.

Issued on: April 13, 2015.

Larry W. Minor,

Associate Administrator for Policy.

[FR Doc. 2015-08858 Filed 4-16-15; 8:45 am]

BILLING CODE 4910-EX-P

DEPARTMENT OF TRANSPORTATION

Federal Motor Carrier Safety Administration

[Docket No. FMCSA-2014-0373]

Qualification of Drivers; Exemption Applications; Narcolepsy

AGENCY: Federal Motor Carrier Safety Administration (FMCSA), DOT.

ACTION: Notice of applications for exemption; request for comments.

SUMMARY: FMCSA announces receipt of applications from three individuals for an exemption from the prohibitions against operating a commercial motor vehicle (CMV) in interstate commerce by persons with either a clinical diagnosis of a condition that is likely to cause a loss of consciousness or any loss of ability to operate a CMV safely, [49 CFR 391.41(b)(8)], or a mental, nervous, organic, or functional disease or psychiatric disorder likely to interfere with his/her ability to drive a commercial motor vehicle safely, [49 CFR 391.41(b)(9)]. If granted, the exemption would enable these individuals who have been diagnosed with narcolepsy and are receiving medical treatment to operate CMVs for 2 years in interstate commerce.

DATES: Comments must be received on or before May 18, 2015.

ADDRESSES: You may submit comments bearing the Federal Docket Management System (FDMS) Docket ID FMCSA-2012-0081 using any of the following methods:

- *Federal eRulemaking Portal:* Go to www.regulations.gov. Follow the on-line instructions for submitting comments.

- *Mail:* Docket Management Facility; U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

- *Hand Delivery or Courier:* West Building Ground Floor, Room W12-140,

1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal Holidays.

- *Fax:* 1-202-493-2251.

Each submission must include the Agency name and the docket ID for this Notice. Note that DOT posts all comments received without change to www.regulations.gov, including any personal information included in a comment. Please see the Privacy Act heading below.

Docket: For access to the docket to read background documents or comments, go to www.regulations.gov, at any time or Room W12-140 on the ground level of the West Building, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The FDMS is available 24 hours each day, 365 days each year. If you want acknowledgment that we received your comments, please include a self-addressed, stamped envelope or postcard or print the acknowledgement page that appears after submitting comments on-line.

Privacy Act: In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to www.regulations.gov, as described in the system records notice (DOT/ALL-14 FDMS), which can be reviewed at www.dot.gov/privacy.

FOR FURTHER INFORMATION CONTACT: Charles A. Horan, III, Director, Office of Carrier, Driver and Vehicle Safety, (202) 366-4001, or via email at fmcsamedical@dot.gov, or by letter to FMCSA, Room W64-113, Department of Transportation, 1200 New Jersey Avenue SE., Washington, DC 20590-0001. Office hours are from 8:30 a.m. to 5 p.m., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:

Background

FMCSA has authority under 49 U.S.C. 31136(e) and 31315 to grant exemptions from certain parts of the Federal Motor Carrier Safety Regulations. FMCSA must publish a notice of each exemption request in the **Federal Register** [49 CFR 381.315(a)]. The Agency must provide the public an opportunity to inspect the information relevant to the application, including any safety analyses that have been conducted. The Agency must also provide an opportunity for public comment on the request.

The Agency reviews safety analyses and public comments submitted, and

determines whether granting the exemption would likely achieve a level of safety equivalent to, or greater than, the level that would be achieved by the current regulation (49 CFR 381.305). The Agency may grant an exemption subject to specified terms and conditions. The decision of the Agency must be published in the **Federal Register** (49 CFR 381.315(b)) with the reasons for denying or granting the application and, if granted, the name of the person or class of persons receiving the exemption, and the regulatory provision from which the exemption is granted. The notice must also specify the effective period and explain the terms and conditions of the exemption. The exemption may be renewed (49 CFR 381.300(b)).

FMCSA provides medical advisory criteria in the Medical Examination Report at 49 CFR 391.43 for use by medical examiners in determining whether drivers with certain medical conditions should be certified to operate commercial motor vehicles in interstate commerce. The advisory criteria for 49 CFR 391.41(b)(8), indicates that if an individual has had a sudden episode of a non-epileptic seizure or loss of consciousness of unknown cause that did not require anti-seizure medication, the decision whether that person's condition is likely to cause the loss of consciousness or loss of ability to control a CMV should be made on an individual basis by the medical examiner in consultation with the treating physician. Before certification is considered, it is suggested that a 6-month waiting period elapse from the time of the episode. Following the waiting period, it is suggested that the individual have a complete neurological examination. If the results of the examination are negative and anti-seizure medication is not required, then the driver may be qualified.

In those individual cases where a driver had a seizure or an episode of loss of consciousness that resulted from a known medical condition (e.g., drug reaction, high temperature, acute infectious disease, dehydration, or acute metabolic disturbance), certification should be deferred until the driver has fully recovered from that condition, has no existing residual complications, and is not taking anti-seizure medication.

The advisory criteria for 49 CFR 391.41 (b)(9), indicates that a variety of functional disorders can cause drowsiness, dizziness, confusion, weakness or paralysis that may lead to incoordination, inattention, loss of functional control and susceptibility to accidents while driving.

Summary of Applications

Thomas Skagen

Mr. Skagen is a 53-year-non-CDL holder from Washington. He is route sales representative for a bakery. He was diagnosed with Narcolepsy without cataplexy¹ in 2008. His physician has treated him for 3 years and is supportive of Mr. Skagen's exemption request. He states that Mr. Skagen is treated with Adderall and has a known 3-year history of being very compliant with medical treatment, his Epworth Sleepiness Scale scores remain within normal limits, and he does not fall asleep at any inappropriate times. He has driven a step van (a walk-in or multi-stop truck) since 2005 and says that sleepiness has never been an issue and in 37 years of driving he has never caused an accident. He would like to be granted an exemption in order to obtain a medical certificate to operate in interstate commerce.

Charles "Larry" Peterson

Mr. Charles Larry Peterson is a 56-year old Class A CDL holder in Washington. He is tractor-trailer driver. He was diagnosed with Narcolepsy in 1987 and has been continually treated for this condition since his diagnosis. A November 2014 letter from Mr. Peterson's physician states he is successfully treated with Provigil. He has never known of any traffic incidents, accidents or problems related to his narcolepsy or treatment. In his opinion his narcolepsy is well controlled and he is safe to drive. A November 6 letter from his employer supports Mr. Peterson's request for an exemption. The employer reports that Mr. Peterson has been employed since 2012 and has been an exemplary driver since he was hired. The employer reports there have been no accidents, communication problems, and no questionable performance issues during his employment. Mr. Peterson would like to be granted an exemption to continue to operate in interstate commerce.

Stanley Jandreau

Mr. Jandreau is a 43 year old Class A CDL holder in Maine. A February 2015 letter from his sleep medicine specialists states that Mr. Jandreau has been a patient since 2002 when he was found to have obstructive sleep apnea and narcolepsy with cataplexy. Mr. Jandreau's specialists report that he is

¹ According to National Institutes of Health, National Institute of Neurological Disorders and Stroke, cataplexy is a sudden loss of muscle tone while the person is awake that leads to feelings of weakness and a loss of voluntary muscle control.

stable on therapies for both conditions and his CPAP compliance is acceptable to excellent. He is maintained on Provigil and Zoloft and by all accounts his sleep disorders are stable and well-treated on his current therapeutic regimen. Medication or dosing changes have not been required since [the specialist] took over his care in 2012. His specialists support Mr. Jandreau's petition for exemption based on his condition being stable for quite some time and is not likely to worsen so long as he continues his current therapeutic regimen. Mr. Jandreau would like to be granted an exemption in interstate commerce.

Request for Comments

In accordance with 49 U.S.C. 31315 and 31136(e), FMCSA requests public comment from all interested persons on the applications for exemption described in this notice. We will consider all comments received before the close of business on the closing date indicated earlier in the notice.

Dated: April 13, 2015.

Larry W. Minor,

Associate Administrator for Policy.

[FR Doc. 2015-08857 Filed 4-16-15; 8:45 am]

BILLING CODE 4910-EX-P

DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

[Docket Number FRA-2006-24812]

Petition for Waiver of Compliance and Notice of Public Hearing; Correction

AGENCY: Federal Railroad Administration, Department of Transportation.

ACTION: Notice; correction.

SUMMARY: On April 3, 2015 (80 FR 18292), the Federal Railroad Administration (FRA) provided notice of a public hearing to receive views, data, and comments regarding BNSF Railway's (BNSF) petition for modification and extension of its waiver of compliance from certain provisions of the Federal railroad safety regulations contained in title 49 Code of Federal Regulations part 232, Brake System Safety Standards for Freight and Other Non-Passenger Trains and Equipment, in Docket Number FRA-2006-24812. The notice contained an incorrect date of the public hearing.

FOR FURTHER INFORMATION CONTACT: Steve Zuiderveen, Railroad Safety Specialist, FRA, 1200 New Jersey Avenue SE., Washington, DC 20590, (202) 493-6337, Steven.Zuiderveen@dot.gov.

Correction

In the **Federal Register** of April 3, 2015, in FR Doc. 2015-07656, on page 18292, in the second column, correct the paragraph to read:

In addition, FRA is extending the comment period for this waiver petition to June 21, 2015, to allow adequate time for any additional comments to be submitted following the public hearing on May 21, 2015.

Issued in Washington, DC, on April 11, 2015.

Ron Hynes,

Director, Office of Technical Oversight.

[FR Doc. 2015-08938 Filed 4-16-15; 8:45 am]

BILLING CODE 4910-06-P

DEPARTMENT OF TRANSPORTATION**Federal Railroad Administration**

[Docket No. FRA-2012-0033]

Notice of Intent To Grant a Buy America Waiver to the New York Metropolitan Transportation Authority for the Use of Transponders and Temporary Speed Restriction Safety Servers

AGENCY: Federal Railroad Administration (FRA), United States Department of Transportation (DOT).

ACTION: Notice of intent to grant Buy America waiver.

SUMMARY: FRA is issuing this notice to advise the public that it intends to grant the New York Metropolitan Transportation Authority (MTA) on behalf of its commuter railroad subsidiaries, Long Island Rail Road (LIRR) and Metro-North Commuter Railroad Company (Metro-North), a waiver from FRA's Buy America requirement for the use of (a) transponders and (b) Temporary Speed Restriction (TSR) safety servers, which are made in Sweden. Transponders and TSR safety servers are two components of LIRR's and Metro-North's Positive Train Control system (PTC). The two non-domestic components represent approximately 1% of the \$428 million total value of the contracts Metro-North and LIRR entered into with a system integrator to design and furnish PTC (PTC Contracts). The TSR safety servers cost less than \$1 million and the transponders approximately \$4 million. FRA anticipates funding the PTC Contracts, and other PTC-related projects, under a \$967.1 million FRA Railroad Rehabilitation & Improvement Financing loan.

DATES: Written comments on FRA's determination to grant MTA's Buy

America waiver request should be provided to the FRA on or before April 22, 2015.

ADDRESSES: Please submit your comments by one of the following means, identifying your submissions by docket number FRA-2012-0033. All electronic submissions must be made to the U.S. Government electronic site at <http://www.regulations.gov>. Commenters should follow the instructions below for mailed and hand-delivered comments.

(1) *Web site:* <http://www.regulations.gov>. Follow the instructions for submitting comments on the U.S. Government electronic docket site;

(2) *Fax:* (202) 493-2251;

(3) *Mail:* U.S. Department of Transportation, 1200 New Jersey Avenue SE., Docket Operations, M-30, Room W12-140, Washington, DC 20590-0001; or

(4) *Hand Delivery:* Room W12-140 on the first floor of the West Building, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Instructions: All submissions must make reference to the "Federal Railroad Administration" and include docket number FRA-2012-0033. Due to security procedures in effect since October 2001, mail received through the U.S. Postal Service may be subject to delays. Parties making submissions responsive to this notice should consider using an express mail firm to ensure the prompt filing of any submissions not filed electronically or by hand. Note that all submissions received, including any personal information therein, will be posted without change or alteration to <http://www.regulations.gov>. For more information, you may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477), or visit <http://www.regulations.gov>.

FOR FURTHER INFORMATION CONTACT: Mr. John Johnson, Attorney-Advisor, FRA Office of Chief Counsel, 1200 New Jersey Avenue SE., Mail Stop 25, Washington, DC 20590, (202) 493-0078, John.Johnson@dot.gov.

SUPPLEMENTARY INFORMATION:

The letter granting MTA's request is quoted below:

Mr. Richard L. Gans
Vice President—General Counsel & Secretary
Long Island Rail Road
Jamaica Station
Jamaica, NY 11435-4380

Re: Request for Waiver of Buy America Requirement

Dear Mr. Gans:

As you are aware, on February 19, 2015, the New York Metropolitan Transportation Authority (MTA) on behalf of its commuter railroad subsidiaries, Long Island Rail Road (LIRR) and Metro-North Commuter Railroad Company (Metro-North), requested a waiver from the Federal Railroad Administration's (FRA) Buy America requirement to purchase (a) transponders and (b) Temporary Speed Restriction (TSR) safety servers for use in LIRR's and Metro-North's Positive Train Control system (PTC). The Rail Safety Improvement Act of 2008 requires certain railroads, including LIRR and Metro-North, to implement a PTC system on all nonexempt commuter main-line tracks by December 31, 2015. Facilitating PTC implementation is one of FRA's top priorities.

MTA requested the waiver, stating that the components were not produced in the U.S. in sufficient and reasonably available amounts or are not of a satisfactory quality. The transponders and TSR safety servers are manufactured in Sweden. The two non-domestic components represent approximately 1% of the total value of the PTC system integrator contracts (PTC Contracts). MTA values the TSR safety servers at less than \$1 million and the transponders at approximately \$4 million. Total contract costs are approximately \$428 million. For the reasons set forth below, FRA is granting a waiver for the purchase of the transponders and TSR safety servers.

A waiver is appropriate because domestically-produced transponders and TSR safety servers meeting MTA's technical and schedule requirements are not currently "produced in sufficient and reasonably available amount or are not of a satisfactory quality." Coordinating with FRA, MTA engaged the U.S. Department of Commerce's National Institute of Standards and Technology's Hollings Manufacturing Extension Partnership (NIST-MEP) to conduct market research for the transponders and TSR safety servers. In conducting that research, MTA contacted several potential manufacturers identified by NIST-MEP. None produced the transponders or TSR safety servers.

On February 20, 2015, FRA provided public notice of this waiver request and a 15-day opportunity for comment on its Web site. FRA also emailed notice to over 6,000 persons who have signed up for Buy America notices through "GovDelivery." See <http://www.fra.dot.gov/Page/P0784>. FRA received one comment, which was not responsive to this waiver request. FRA will publish this letter granting MTA's request in the **Federal Register** and provide notice of such finding and an opportunity for public comment after which this waiver will become effective.

Question about this letter can be directed to, John Johnson, Attorney-Advisor, at John.Johnson@dot.gov or (202) 493-0078.

Sincerely,

Sarah Feinberg
Acting Administrator

Issued in Washington, DC, on April 2015.

Melissa L. Porter,
Chief Counsel.

[FR Doc. 2015-08786 Filed 4-16-15; 8:45 am]

BILLING CODE 4910-06-P

DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

[Docket Number FRA-2004-18895]

Petition for Waiver of Compliance

In accordance with part 211 of title 49 of the Code of Federal Regulations (CFR), this provides the public notice that by a document dated November 25, 2014, Wabtec Railway Electronics has petitioned the Federal Railroad Administration (FRA) for a waiver of compliance from certain provisions of the Federal railroad safety regulations contained at 49 CFR 232.409(d)—*Inspection and testing of end-of-train devices*. FRA assigned the petition Docket Number FRA-2004-18895.

Wabtec Railway Electronics (Wabtec) is submitting a request for a 5-year extension to the waiver previously granted to it in Docket Number FRA-2004-18895. Wabtec initially submitted its request for a waiver of compliance from 49 CFR 232.409(d) in July 2004, and the waiver was granted in May 2005. Subsequently, Wabtec applied for a 5-year extension to the original waiver in October 2009. The extension was granted in May 2010.

In its original request for waiver of compliance from 49 CFR 232.409(d) in July 2004, Wabtec stated that the advanced technology being used in the units includes transceivers with phase locked loop circuitry along with temperature and voltage controlled crystal oscillators to maintain spectral (signal) purity. This automatic calibration algorithm works by optimizing the voltage-controlled oscillators' control parameters to achieve minimum phase noise. It auto calibrates the power amplifier and power amplifier driver bias current every time the transmitter is powered. This automatic calibration feature is the heart of maintaining the radio's performance integrity.

Should the radio experience a component failure, the automated calibration routine will cycle continuously, effectively shut down the radio, and provide the appropriate "No Comm" display in the cab of the locomotive. Failure in the micro/power supply areas will also result in an inoperable radio, and the same "No Comm" message will be received in the locomotive cab. Therefore, there is no

need to annually test and calibrate the new synthesized radio. Essentially, if the radio is transmitting, the signal is within the proper specifications.

In the most recent letter dated November 25, 2014, Wabtec stated that it still offers this radio (Wabtec TrainLink II) in certain new manufactured end-of-train/head-of-train (EOT/HOT) products today, although it has largely been replaced by a more modern radio design. However, there is a large fielded population in service in North America. Wabtec further stated that in order to meet the needs of customers, the company plans to continue to manufacture Wabtec digitally synthesized radios (Wabtec TrainLink series) for replacement use in HOT and EOT equipment, as well as limited use in new production deliveries.

A copy of the petition, as well as any written communications concerning the petition, is available for review online at www.regulations.gov and in person at the U.S. Department of Transportation's (DOT) Docket Operations Facility, 1200 New Jersey Avenue SE., W12-140, Washington, DC 20590. The Docket Operations Facility is open from 9 a.m. to 5 p.m., Monday through Friday, except Federal Holidays.

Interested parties are invited to participate in these proceedings by submitting written views, data, or comments. FRA does not anticipate scheduling a public hearing in connection with these proceedings since the facts do not appear to warrant a hearing. If any interested party desires an opportunity for oral comment, they should notify FRA, in writing, before the end of the comment period and specify the basis for their request.

All communications concerning these proceedings should identify the appropriate docket number (e.g., Waiver Petition Docket Number FRA-2004-18895) and may be submitted by any of the following methods:

- Web site: <http://www.regulations.gov>. Follow the online instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: Docket Operations Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., W12-140, Washington, DC 20590.
- Hand Delivery: 1200 New Jersey Avenue SE., Room W12-140, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal Holidays.

Communications received by June 1, 2015 will be considered by FRA before final action is taken. Comments received after that date will be considered as far as practicable.

Anyone is able to search the electronic form of any written communications and comments received into any of our dockets by the name of the individual submitting the comment (or signing the document, if submitted on behalf of an association, business, labor union, etc.). In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its processes. DOT posts these comments, without edit, including any personal information the commenter provides, to www.regulations.gov, as described in the system of records notice (DOT/ALL-14 FDMS), which can be reviewed at www.dot.gov/privacy. See also <http://www.regulations.gov/#!privacyNotice> for the privacy notice of regulations.gov or interested parties may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477).

Issued in Washington, DC, on April 11, 2015.

Ron Hynes,

Director of Technical Oversight.

[FR Doc. 2015-08937 Filed 4-16-15; 8:45 am]

BILLING CODE 4910-06-P

DEPARTMENT OF VETERANS AFFAIRS

Advisory Committee on Cemeteries and Memorials, Notice of Meeting

The Department of Veterans Affairs (VA) gives notice under Federal Advisory Committee Act, 38 U.S.C. App. 2 that a meeting of the Advisory Committee on Cemeteries and Memorials will be held on May 12-13, 2015, in the National Cemetery Administration's training room 104 at 1100 First Street NE., Washington, DC 20002, from 8:30 a.m. to 4:30 p.m. The meeting is open to the public.

The purpose of the Committee is to advise the Secretary of Veterans Affairs on the administration of national cemeteries, soldiers' lots and plots, the selection of new national cemetery sites, the erection of appropriate memorials, and the adequacy of Federal burial benefits.

On May 12, the Committee will receive mandatory training from the Office of General Counsel in the morning and updates on VA and National Cemetery Administration (NCA) issues by appropriate VA staff. On the morning of May 13, the Committee will receive background information on NCA projects and updates from ex-officio members.

Time will be allocated on both May 12 and May 13 to receive public

comments at 1:00 p.m. Public comments are limited to three minutes each. Individuals wishing to make oral statements before the Committee will be accommodated on a first-come, first-served basis. Individuals who speak are invited to submit 1–2 page summaries of their comments at the time of the meeting for inclusion in the official meeting record.

Members of the public may direct questions or submit written statements for review by the Committee in advance of the meeting to Mr. Michael Nacincik, Designated Federal Officer, VA, NCA (43A2), 1100 1st Street NE., Washington, DC 20002, or by email at michael.nacincik@va.gov. In the public's communications with the Committee, the writers must identify themselves and state the organizations,

associations, or persons they represent. Any member of the public wishing to attend the meeting should contact Mr. Nacincik at (202) 632–8035.

Dated: April 13, 2015.

Jelessa Burney,

Federal Advisory Committee Management Officer.

[FR Doc. 2015–08783 Filed 4–16–15; 8:45 am]

BILLING CODE 8320–01–P



FEDERAL REGISTER

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Friday,

No. 74

April 17, 2015

Part II

Environmental Protection Agency

40 CFR Parts 257 and 261

Hazardous and Solid Waste Management System; Disposal of Coal
Combustion Residuals From Electric Utilities; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 257 and 261

[EPA-HQ-RCRA-2009-0640; FRL-9919-44-OSWER]

RIN-2050-AE81

Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA or the Agency) is publishing a final rule to regulate the disposal of coal combustion residuals (CCR) as solid waste under subtitle D of the Resource Conservation and Recovery Act (RCRA). The available information demonstrates that the risks posed to human health and the environment by certain CCR management units warrant regulatory controls. EPA is finalizing national minimum criteria for existing and new CCR landfills and existing and new CCR surface impoundments and all lateral expansions consisting of location restrictions, design and operating criteria, groundwater monitoring and corrective action, closure requirements and post closure care, and recordkeeping, notification, and internet posting requirements. The rule requires any existing unlined CCR surface impoundment that is contaminating groundwater above a regulated constituent's groundwater protection standard to stop receiving CCR and either retrofit or close, except in limited circumstances. It also requires the closure of any CCR landfill or CCR surface impoundment that cannot meet the applicable performance criteria for location restrictions or structural integrity. Finally, those CCR surface impoundments that do not receive CCR after the effective date of the rule, but still contain water and CCR will be subject to all applicable regulatory requirements, unless the owner or operator of the facility dewateres and installs a final cover system on these inactive units no later than three years from publication of the rule. EPA is deferring its final decision on the Bevill Regulatory Determination because of regulatory and technical uncertainties that cannot be resolved at this time.

DATES: This final rule is effective on October 14, 2015.

ADDRESSES: EPA has established three dockets for this regulatory action under

Docket ID No. EPA-HQ-RCRA-2009-0640, Docket ID No. EPA-HQ-RCRA-2011-0392, and Docket ID No. EPA-HQ-RCRA-2012-0028. All documents in these dockets are available at <http://www.regulations.gov>. Although listed in the index, some information is not publicly available, e.g., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in <http://www.regulations.gov> or in hard copy at the OSWER Docket, EPA/DC, WJC West Building, Room 3334, 1301 Constitution Ave. NW., Washington, DC 20460. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the OSWER Docket is 202-566-0276.

FOR FURTHER INFORMATION CONTACT: For questions on technical issues: Alexander Livnat, Office of Resource Conservation and Recovery, Environmental Protection Agency, 5304P; telephone number: (703) 308-7251; fax number: (703) 605-0595; email address: livnat.alexander@epa.gov, or Steve Souders, Office of Resource Conservation and Recovery, Environmental Protection Agency, 5304P; telephone number: (703) 308-8431; fax number: (703) 605-0595; email address: souders.steve@epa.gov. For questions on the regulatory impact analysis: Richard Benware, Office of Resource Conservation and Recovery, Environmental Protection Agency, 5305P; telephone number: (703) 308-0436; fax number: (703) 308-7904; email address: benware.richard@epa.gov. For questions on the risk assessment: Jason Mills, Office of Resource Conservation and Recovery, Environmental Protection Agency, 5305P; telephone number: (703) 305-9091; fax number: (703) 308-7904; email address: mills.jason@epa.gov.

For more information on this rulemaking please visit <http://www.epa.gov/epawaste/nonhaz/industrial/special/fossil/index.htm>.

SUPPLEMENTARY INFORMATION:

A. Does this action apply to me?

This rule applies to all coal combustion residuals (CCR) generated by electric utilities and independent power producers that fall within the North American Industry Classification

System (NAICS) code 221112 and may affect the following entities: Electric utility facilities and independent power producers that fall under the NAICS code 221112. The industry sector(s) identified above may not be exhaustive; other types of entities not listed could also be affected. The Agency's aim is to provide a guide for readers regarding those entities that potentially could be affected by this action. To determine whether your facility, company, business, organization, etc., is affected by this action, you should refer to the applicability criteria discussed in Unit VI.A. of this document. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

B. What actions are not addressed in this rule?

This rule does not address the placement of CCR in coal mines. The U.S. Department of Interior (DOI) and, as necessary, EPA will address the management of CCR in minefills in separate regulatory action(s), consistent with the approach recommended by the National Academy of Sciences, recognizing the expertise of DOI's Office of Surface Mining Reclamation and Enforcement in this area. See Unit VI of this document for further details. This rule does not regulate practices that meet the definition of a beneficial use of CCR. Beneficial uses that occur after the effective date of the rule need to determine if they comply with the criteria contained in the definition of "beneficial use of CCRs." This rule does not affect past beneficial uses (i.e., uses completed before the effective date of the rule.) See Unit VI of this document for further details on proposed clarifications of beneficial use. Furthermore, CCR from non-utility boilers burning coal are also not addressed in this final rule. EPA will decide on an appropriate action for these wastes through a separate rulemaking effort. See Unit IV of this document for further details. Finally, this rule does not apply to municipal solid waste landfills (MSWLFs) that receive CCR for disposal or use as daily cover.

C. The Contents of This Preamble Are Listed in the Following Outline

- I. Executive Summary
- II. Statutory Authority
- III. Background
- IV. Bevill Regulatory Determination Relating to CCR From Electric Utilities and Independent Power Producers
- V. Development of the Final Rule—RCRA Subtitle D Regulatory Approach

- VI. Development of the Final Rule—
Technical Requirements
- VII. Summary of Major Differences Between
the Proposed and Final Rules
- VIII. Implementation Timeframes for
Minimum National Criteria and
Coordination With Steam Electric ELG
Rule
- IX. Implementation of the Minimum Federal
Criteria and State Solid Waste
Management Plans
- X. Risk Assessment
- XI. Summary of Damage Cases
- XII. Summary of Regulatory Impact Analysis
- XIII. Uniquely Associated Wastes
- XIV. Statutory and Executive Order Reviews

I. Executive Summary

This rule establishes nationally applicable minimum criteria for the safe disposal of coal combustion residuals in landfills and surface impoundments. This section summarizes these criteria. Detailed discussions of the criteria and the Agency's rationale for finalizing these requirements are provided in Unit VI of this document.

A. What are coal combustion residuals?

Coal combustion residuals (CCR) are generated from the combustion of coal, including solid fuels classified as anthracite, bituminous, subbituminous, and lignite, for the purpose of generating steam for the purpose of powering a generator to produce electricity or electricity and other thermal energy by electric utilities and independent power producers. CCR includes fly ash, bottom ash, boiler slag, and flue gas desulfurization materials. A description of the types of CCR can be found in the proposed rule (see 75 FR 35137).

CCR is one of the largest industrial waste streams generated in the U.S. In 2012, over 470 coal-fired electric utilities burned over 800 million tons of coal, generating approximately 110 million tons of CCR in 47 states and Puerto Rico. CCR may be generated wet or dry; however, this composition may change after generation. Some CCR is dewatered while other CCR is mixed with water to facilitate transport (*i.e.*, sluiced). CCR can be sent off-site for disposal or beneficial use or disposed in on-site landfills or surface impoundments. In 2012, approximately 40 percent of the CCR generated was beneficially used, with the remaining 60 percent disposed in surface impoundments and landfills. Of that 60 percent, approximately 80 percent was disposed in on-site disposal units. CCR disposal currently occurs at over 310 active on-site landfills, averaging over 120 acres in size with an average depth of over 40 feet, and at over 735 active on-site surface impoundments,

averaging over 50 acres in size with an average depth of 20 feet.

B. Background

The Agency first solicited comments on the regulation of CCR in a proposed rule published in the **Federal Register** on June 21, 2010. This proposal, under the Resource Conservation and Recovery Act (RCRA), addressed the risks from disposal of CCR generated from the combustion of coal at electric utilities and from independent power producers. Two regulatory options were proposed. Under the first option, EPA proposed to list CCR as special waste subject to regulation under subtitle C of RCRA, when destined for disposal in landfills or surface impoundments. Under this option, CCR would require "cradle-to-grave" management and would be subject to requirements for, among other things, composite liners, groundwater monitoring, structural stability requirements, corrective action, closure/post closure care and financial assurance. States would be required to adopt the rule before it went into effect and a permitting program would be established with direct federal oversight. The subtitle C option, as proposed, would also effectively result in the closure of all CCR surface impoundments.

Under the second option, EPA proposed to regulate the disposal of CCR under subtitle D of RCRA by issuing minimum national criteria. Similar to the subtitle C option, this option would require composite liners, groundwater monitoring, structural stability requirements, corrective action, and closure/post closure care. However, consistent with the available statutory authority under subtitle D, EPA proposed this option to be a self-implementing rule with no direct federal oversight, with an effective date six months after publication in the **Federal Register**. This option required all unlined surface impoundments to either retrofit to a composite liner or close within five years.

After reviewing all the comments and additional data received, EPA is promulgating this final rule to regulate the disposal of CCR as solid waste under subtitle D of RCRA. This rule addresses the risks from structural failures of CCR surface impoundments, groundwater contamination from the improper management of CCR in landfills and surface impoundments and fugitive dust emissions. The rule has also been designed to provide electric utilities and independent power producers generating CCR with a practical approach for implementation of the requirements and has established

implementation timelines that take into account, among other things, other upcoming regulatory actions affecting electric utilities and site specific practical realities. In order to ease implementation of the regulatory requirements for CCR units with state programs, EPA is also providing the opportunity for states to secure approval of its CCR program through the State Solid Waste Management Plan ("SWMP"). EPA strongly recommends that states take advantage of this process by revising their SWMPs to address the issuance of the revised federal requirements in this final rule, and to submit revisions of these plans to EPA for review. EPA would then review and approve the revised SWMPs provided they demonstrate that the minimum federal requirements in this final rule will be met. In this way, EPA's approval of a revised SWMP signals EPA's opinion that the state SWMP meets the minimum federal criteria.

C. What types of CCR units are covered by this rule?

The final rule applies to owners and operators of new and existing landfills and new and existing surface impoundments, including all lateral expansions of landfills and surface impoundments that dispose or otherwise engage in solid waste management of CCR generated from the combustion of coal at electric utilities and independent power producers. The requirements of the rule also apply to CCR units located off-site of the electric utilities' or independent power producers' facilities that receive CCR for disposal. In addition, the rule applies to certain inactive CCR surface impoundments (*i.e.*, units not receiving CCR after the effective date of the rule) at active electric utilities' or independent power producers' facilities, regardless of the fuel currently used at the facility to produce electricity (*e.g.* coal, natural gas, oil), if the CCR unit still contains CCR and liquids.

The requirements do not apply to: (1) CCR landfills that ceased receiving CCR prior to the effective date of the rule; (2) CCR units at facilities that have ceased producing electricity (or electricity and other thermal energy) prior to the effective date of the rule; (3) CCR generated at facilities that are not part of an electric utility or independent power producer, such as manufacturing facilities, universities, and hospitals; (4) fly ash, bottom ash, boiler slag, and flue gas desulfurization materials, generated primarily from the combustion of fuels (including other fossil fuels) other than coal, for the purpose of generating electricity unless the fuel burned

consists of more than fifty percent coal on a total heat input or mass input basis, whichever results in the greater mass feed rate of coal; (5) CCR that is beneficially used; (6) CCR placement at active or abandoned underground or surface coal mines; or (7) municipal solid waste landfills (MSWLF) that receive CCR.

D. What minimum national criteria are being established for CCR landfills and CCR surface impoundments?

This final rule establishes minimum national criteria for CCR landfills, CCR surface impoundments, and all lateral expansions of CCR units including location restrictions, liner design criteria, structural integrity requirements, operating criteria, groundwater monitoring and corrective action requirements, closure and post-closure care requirements, and recordkeeping, notification, and internet posting requirements.

1. Location Restrictions. To ensure there will be no reasonable probability of adverse effects on health or the environment from the disposal of CCR in CCR landfills, CCR surface impoundments, and all lateral expansions of CCR landfills and CCR surface impoundments (together "CCR units"), this final rule establishes five location restrictions. The location criteria include restrictions relating to placement of CCR above the uppermost aquifer, in wetlands, within fault areas, in seismic impact zones, and in unstable areas. All of these location restrictions require the owner or operator of a CCR unit to demonstrate that they meet the specific criteria. As discussed elsewhere in this preamble, the five location restrictions apply to all new CCR landfills, all new and existing CCR surface impoundments, and all lateral expansions of CCR units; however, existing CCR landfills are only subject to the location restriction for unstable areas. Units that do not meet these restrictions can retrofit or make appropriate engineering demonstrations to meet this criteria. This final rule requires owner or operators of existing CCR units that cannot make the required demonstrations to close, while owners or operators of new CCR units and all lateral expansions who fail to make the required demonstrations are prohibited from placing CCR in the CCR unit.

2. Liner Design Criteria. The final rule also establishes liner design criteria to help prevent contaminants in CCR from leaching from the CCR unit and contaminating groundwater. All new CCR landfills, new CCR surface impoundments, and lateral expansions of CCR units must be lined with

composite liner, which is a liner system consisting of two components—a geomembrane and a two-foot layer of compacted soil—installed in direct and uniform contact with one another. The final rule allows an owner or operator to construct a new CCR unit with an alternative composite liner, provided the alternative composite liner performs no less effectively than the composite liner. In addition, new landfills are required to operate with a leachate collection and removal system which is designed to remove excess leachate that may accumulate on top of the composite (or alternative composite) liner. Existing CCR landfills are not required to close or retrofit with a composite (or alternative composite) liner and a leachate collection and removal system. These existing CCR units can continue to receive CCR after this rule is in effect; however, the CCR units must meet all applicable groundwater monitoring and corrective action criteria to address any groundwater releases promptly. Existing CCR surface impoundments can also continue to operate as designed. However, if the existing CCR surface impoundment was not constructed with a composite (or alternative composite) liner or with at least two feet of compacted soil with a specified hydraulic conductivity, the rule would require the unit to retrofit or close if the CCR surface impoundment detects concentrations of one or more constituents listed in appendix IV at statistically significant levels above the groundwater protection standard established by the rule.

3. Structural Integrity Requirements. To help prevent the damages associated with structural failures of CCR surface impoundments, the final rule establishes structural integrity criteria for new and existing surface impoundments (and all lateral expansions) as part of the design criteria. While the applicability of the structural integrity requirements to individual CCR surface impoundments vary depending on factors such as dike heights and the potential for loss of life, environmental damage and economic loss if there is a dike failure, the final rule establishes requirements for owner or operators to conduct a number of structural integrity-related assessments regularly. These include: (1) Conducting periodic hazard potential classification assessments to assess the potential adverse incremental consequences that would occur if there was a failure of the CCR surface impoundment; (2) conducting periodic structural stability assessments by a qualified professional engineer to document whether the

design, construction, operation and maintenance is consistent with recognized and generally accepted good engineering practices; and (3) conducting periodic safety factor assessments to document whether the CCR unit achieves minimum factors of safety for slope stability. If a CCR unit required to conduct a safety factor assessment fails to demonstrate that the unit achieves the specified factors of safety, the owner or operator must close the unit. In addition, certain CCR surface impoundments are required to develop an emergency action plan which defines the events and circumstances involving the CCR unit that represent an emergency and identifies the actions that will be taken in the event of a safety emergency.

4. Operating Criteria. The operating criteria include air criteria for all CCR units, run-on and run-off controls for CCR landfills, hydrologic and hydraulic capacity requirements for CCR surface impoundments, and periodic inspection requirements for all CCR units. These criteria address the day-to-day operations of CCR units and are established to prevent health and environmental impacts from CCR units. The air criteria address the pollution caused by windblown dust from CCR units, and require owners and operators to minimize CCR from becoming airborne at the facility. The run-on controls for CCR landfills minimize the amount of surface water entering the unit that will help prevent erosion, surface discharges of CCR in solution or suspension, and will mitigate the generation of landfill leachate, while run-off controls help prevent erosion, protect downstream surface water from releases from the unit, and minimize storm water run-off volume and velocity. CCR surface impoundments are subject to hydrologic and hydraulic capacity requirements to ensure the unit can safely handle flood flows, which will help prevent uncontrolled overtopping of the unit or erosion of the materials used to construct the surface impoundment. The final rule also requires periodic inspections of CCR units to identify any appearance of structural weakness or other conditions that are not consistent with recognized and generally accepted good engineering standards.

5. Groundwater Monitoring and Corrective Action. The groundwater monitoring and corrective action criteria require an owner or operator of a CCR unit to install a system of monitoring wells and specify procedures for sampling these wells, in addition to methods for analyzing the groundwater data collected, to detect the presence of

hazardous constituents (e.g., toxic metals) and other monitoring parameters (e.g., pH, total dissolved solids) released from the units. The final rule establishes a groundwater monitoring program consisting of detection monitoring, assessment monitoring and corrective action. Once a groundwater monitoring system and groundwater monitoring program has been established for a CCR unit, the owner or operator must conduct groundwater monitoring and, if the monitoring demonstrates an exceedance of a groundwater protection standard for any of the identified constituents in CCR, must initiate corrective action.

6. Closure and Post-Closure Requirements. The closure and post-closure care criteria require all CCR units to close in accordance with specified standards and to monitor and maintain the units for a period of time after closure, including the groundwater monitoring and corrective action programs. These criteria are essential to

ensuring the long-term safety of closed CCR units. Closure of a CCR unit must be completed either by leaving the CCR in place and installing a final cover system or through removal of the CCR and decontamination of the CCR unit. The final rule establishes timeframes to initiate and complete closure activities, and authorize owners or operators to obtain time extensions due to circumstances beyond the facility's control. As discussed elsewhere in this preamble, the rule also establishes alternative closure procedures in situations where an owner or operator is closing a CCR unit, but has no alternative CCR disposal capacity or is permanently closing the coal-fired boiler unit in the foreseeable future. Finally, owners and operators are required to prepare closure and post-closure care plans describing these activities.

7. Record Keeping, Notification, and Internet Posting Requirements. The final rule requires owners or operators of CCR

units to record certain information in the facility's operating record. In addition, owners and operators are required to provide notification to States and/or appropriate Tribal authorities when the owner or operator places information in the operating record, as well as to maintain a publicly accessible internet site for this information.

8. Severability. EPA intends that the provisions of this rule be severable. In the event that any individual provision or part of this rule is invalidated, EPA intends that this would not render the entire rule invalid, and that any individual provisions that can continue to operate will be left in place. The following tables provide a summary of the specific technical requirements applicable to existing and new CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units.

CCR Landfill Requirements				
Requirement	Existing CCR Landfills		New CCR Landfills and Lateral Expansions	
	Required? ¹	Rule Section	Required? ¹	Rule Section
Location Restrictions:	√	§257.64	√	§257.60 - §257.64
Placement Above the Uppermost Aquifer	█	█	√	§257.60
Wetlands	█	█	√	§257.61
Fault Areas	█	█	√	§257.62
Seismic Impact Zones	█	█	√	§257.63
Unstable Areas	√	§257.64	√	§257.64
Floodplains ²	√	§257.3-1	√	§257.3-1
Endangered Species ²	√	§257.3-2	√	§257.3-2
Design Requirements:	█	█	√	§257.70
Composite Liner	█	█	√	§257.70 (b & c)
Leachate Collection and Removal System	█	█	√	§257.70 (d)
Groundwater Monitoring and Corrective Action	√	§257.90 - §257.98	√	§257.90 - §257.98
Weekly Inspections	√	§257.84 (a)	√	§257.84 (a)
Annual Inspections	√	§257.84 (b)	√	§257.84 (b)
Fugitive Dust Controls	√	§257.80	√	§257.80
Run-on, Run-off Controls	√	§257.81	√	§257.81
Surface Water Protection ²	√	§257.3-3	√	§257.3-3
Closure Requirements	√	§257.100 - §257.103	√	§257.100 - §257.103
Post-Closure Care	√	§257.104	√	§257.104
Recordkeeping Requirements	√	§257.105	√	§257.105
Notification Requirements	√	§257.106	√	§257.106
Publicly Accessible Internet Site Requirements	√	§257.107	√	§257.107
¹ √ = required, █ = not required. ² In existing regulations at 40 CFR part 257, subpart A.				

CCR Surface Impoundment Requirements								
Requirement	Existing Surface Impoundments				New Surface Impoundments and Lateral Expansions			
	Five feet high AND 20 acre-feet, or 20 feet high				Five feet high AND 20 acre-feet, or 20 feet high			
	Yes		No		Yes		No	
	Required? ¹	Rule Section	Required? ¹	Rule Section	Required? ¹	Rule Section	Required? ¹	Rule Section
Location Restrictions:	√	§257.60 - §257.64	√	§257.60 - §257.64	√	§257.60 - §257.64	√	§257.60 - §257.64
Placement Above the Uppermost Aquifer	√	§257.60	√	§257.60	√	§257.60	√	§257.60
Wetlands	√	§257.61	√	§257.61	√	§257.61	√	§257.61
Fault Areas	√	§257.62	√	§257.62	√	§257.62	√	§257.62
Seismic Impact Zones	√	§257.63	√	§257.63	√	§257.63	√	§257.63
Unstable Areas	√	§257.64	√	§257.64	√	§257.64	√	§257.64
Floodplains ⁴	√	§257.3-1	√	§257.3-1	√	§257.3-1	√	§257.3-1
Endangered Species ⁴	√	§257.3-2	√	§257.3-2	√	§257.3-2	√	§257.3-2
Design Requirements:	√	§257.71	√	§257.71	√	§257.72	√	§257.72
Composite Liner	2	§257.71	2	§257.71	√	§257.72	√	§257.72
Leachate Collection and Removal System								
Groundwater Monitoring and Corrective Action	√	§257.90 - §257.98	√	§257.90 - §257.98	√	§257.90 - §257.98	√	§257.90 - §257.98
Structural Integrity Criteria:	√	§257.73 & §257.83	√	§257.73 & §257.83	√	§257.74 & §257.83	√	§257.74 & §257.83
History of Construction	√	§257.73 (c)						
Construction Plan					√	§257.74 (c)		
Marker ³	√	§257.73 (a)(1)	√	§257.73 (a)(1)	√	§257.74 (a)(1)	√	§257.74 (a)(1)
Hazard Potential Classification Assessments ³	√	§257.73 (a)(2)	√	§257.73 (a)(2)	√	§257.74 (a)(2)	√	§257.74 (a)(2)
Structural Stability Assessments	√	§257.73 (d)			√	§257.74 (d)		
Safety Factor Assessments	√	§257.73 (e)			√	§257.74 (e)		
Emergency Action Plan ³	√	§257.73 (a)(3)	√	§257.73 (a)(3)	√	§257.74 (a)(3)	√	§257.74 (a)(3)
Weekly Inspections	√	§257.83 (a)	√	§257.83 (a)	√	§257.83 (a)	√	§257.83 (a)
Annual Inspections	√	§257.83 (b)			√	§257.83 (b)		
Fugitive Dust Controls	√	§257.80	√	§257.80	√	§257.80	√	§257.80

CCR Surface Impoundment Requirements								
Requirement	Existing Surface Impoundments				New Surface Impoundments and Lateral Expansions			
	Five feet high AND 20 acre-feet, or 20 feet high				Five feet high AND 20 acre-feet, or 20 feet high			
	Yes		No		Yes		No	
	Required? ¹	Rule Section	Required? ¹	Rule Section	Required? ¹	Rule Section	Required? ¹	Rule Section
Hydrologic & Hydraulic Capacity Requirements	√	§257.82	√	§257.82	√	§257.82	√	§257.82
Surface Water Protection ⁴	√	§257.3-3	√	§257.3-3	√	§257.3-3	√	§257.3-3
Closure Requirements	√	§257.100 - §257.103	√	§257.100 - §257.103	√	§257.100 - §257.103	√	§257.100 - §257.103
Post-Closure Care	√	§257.104	√	§257.104	√	§257.104	√	§257.104
Recordkeeping Requirements	√	§257.105	√	§257.105	√	§257.105	√	§257.105
Notification Requirements	√	§257.106	√	§257.106	√	§257.106	√	§257.106
Publicly Accessible Internet Site Requirements	√	§257.107	√	§257.107	√	§257.107	√	§257.107

¹ √ = required, ■ = not required.
² Existing CCR surface impoundments are required to be constructed with two feet of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec, a composite liner that meets the requirements of §257.70(b), or an alternative liner that meets the requirements of §257.70(c).
³ This requirement does not apply to an incised CCR surface impoundment.
⁴ In existing regulations at 40 CFR part 257, subpart A.

E. When must owners or operators of CCR landfills and CCR surface impoundments meet the minimum national criteria?

The rule becomes effective six months after the publication date of this rule. The final rule establishes timeframes for certain technical criteria based on the amount of time determined to be necessary to implement the requirements (e.g., installing the groundwater monitoring wells and establishing the groundwater monitoring program). In establishing these timeframes, EPA accounted for other Agency rulemakings that are anticipated to also affect the owners or operators of CCR units, namely the Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category (78 FR 34432; proposed rule issued June 7, 2013) and the Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (79 FR 34830; proposed rule issued June 18, 2014). Specifically, EPA developed implementation timeframes that would ensure that owner or operators of CCR units would not be required to make decisions about those CCR units without first understanding the implications that such decisions would have for meeting the requirements of all applicable EPA rules.

F. Deferral of Final Bevill Determination

This rule defers a final Bevill Regulatory Determination with respect to CCR that is disposed in CCR landfills and CCR surface impoundments until additional information is available on a number of key technical and policy questions. This includes information needed to quantify the risks of CCR disposal, and the potential impacts of recent Agency regulations on the chemical composition of CCR. The Agency also needs further information on adequacy of the state programs.

G. Beneficial Use

The final rule retains the Bevill exclusion for CCR that is beneficially used, and provides a definition of

beneficial use to distinguish between beneficial use and disposal.

H. Implementation

Because the regulations have been promulgated under sections 1008(a), 4004(a), and 4005(a) of RCRA, the rule does not require permits, does not require states to adopt or implement these requirements, and EPA cannot enforce these requirements. Instead, states or citizens can enforce the requirements of this rule under RCRA's citizen suit authority; the states can also continue to enforce any state regulation under their independent state enforcement authority. (For a more detailed discussion of EPA authorities under RCRA and its relationship to this rule, see 75 FR 35128, June 21, 2010). EPA recognizes the significant role states play in implementing these requirements and EPA strongly encourages states to revise their SWMPs to show how these new criteria will be implemented. EPA would then review and approve the revised plan provided it demonstrates that the minimum federal requirements in this final rule will be met. In this way, EPA's approval of a revised plan signals EPA's opinion that the State's SWMP meets the minimum federal criteria. For a more detailed discussion on the role of the states in implementing this rule, please refer to Unit IX of this document.

I. Characterization of Baseline Affected Entities and CCR Management Practices

This action will affect CCR generated by coal-fired electric utility plants in the NAICS industry code 221112 (i.e., the "Fossil Fuel Electric Power Generation" industry within the NAICS 22 "Utilities" sector code). Based on 2012 electricity generation data published by the Energy Information Administration (EIA), the Regulatory Impact Analysis (RIA) for this action estimated that a total of 478 operational coal-fired electric utility plants in this NAICS code could be affected by this action. These plants are owned by 242 entities consisting of 166 companies, 17 cooperative organizations, 58 state or local governments, and one federal agency. A sub-total of 81 of the 242 owner entities (i.e., 33 percent may be

classified as small businesses, small organizations, or small governments). The 478 coal-fired electric utility plants operate a total of 1,045 CCR management units (735 surface impoundments and 310 landfills). These 478 plants generate 110 million tons of CCR, consisting of 201 plants (42 percent) disposing in on-site landfills, 169 (35 percent) disposing in on-site ponds, and 197 (41 percent) disposing in off-site landfills. Because some plants use more than one CCR management method, these plant counts exceed 478 total plants. In addition, 293 of the 478 plants supply CCR for beneficial uses in at least 14 industries. Nineteen of the 293 plants solely supply CCR for beneficial uses. As of 2012, CCR beneficial uses (i.e., industrial applications) involved about 52 million tons annually.

J. Summary of Estimated Regulatory Costs and Benefits

The EPA estimated future regulatory compliance costs and expected future human health and environmental protection benefits can be found in the RIA document which is available from the docket for this action. The estimated costs and benefits for the CCR rule are incremental to the baseline (current) practices by the electric utility industry to manage CCR in accordance with (a) existing state government environmental regulations and (b) utility company CCR management methods.

The RIA estimates the cost of the rule over a 100 year period because of: (1) CCR unit lifespans (40 years to 80 years of age); (2) groundwater migration (estimated time to peak potential exposures of CCR through groundwater migration to drinking water wells is 75 years); and (3) latency periods for onset of illness after exposure to CCR, which can average 20 years.

The table below summarizes the estimated incremental costs and benefits of the rule. The RIA estimates costs to comply with the 12 pollution control requirements associated with the rule, as well as estimated monetized values for 11 expected benefits, and discusses 11 other non-monetized benefits.

EPA ESTIMATED INCREMENTAL COSTS & BENEFITS OF THE CCR RULE
[millions 2013\$ over 100-year period of analysis 2015–2114]

	3% Discount rate	7% Discount rate
A. Annualized Values		
A1. Total Costs	\$735	\$509
A2. Total monetized benefits	\$294	\$236
A3. Net Benefits (A2–A1)	(\$441)	(\$441)
A4. Benefit to Cost Ratio (A3/A1)	0.40	0.46

EPA ESTIMATED INCREMENTAL COSTS & BENEFITS OF THE CCR RULE—Continued

[millions 2013\$ over 100-year period of analysis 2015–2114]

	3% Discount rate	7% Discount rate
B. Present Value		
B1. Total Costs	\$23,200	\$7,260
B2. Total monetized benefits	\$8,710	\$3,360
B3. Net Benefits (B2–B1)	(\$14,490)	(\$3,900)
B4. Benefit to Cost Ratio (B2/B1)	0.38	0.46

II. Statutory Authority

These regulations are established under the authority of sections 1006(b), 1008(a), 2002(a), 3001, 4004, and 4005(a) of the Solid Waste Disposal Act of 1970, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), 42 U.S.C. 6906(b), 6907(a), 6912(a), 6944 and 6945(a).

RCRA section 1006(b) directs EPA to integrate the provisions of RCRA for purposes of administration and enforcement and to avoid duplication, to the maximum extent practicable, with the appropriate provisions of other EPA statutes. Section 1006(b) conditions EPA’s authority to reduce or eliminate RCRA requirements on the Agency’s ability to demonstrate that the integration meets RCRA’s protectiveness mandate (42 U.S.C. 6005(b)(1)). See *Chemical Waste Management v. EPA*, 976 F.2d 2, 23, 25 (D.C. Cir. 1992).

RCRA section 1008(a) authorizes EPA to publish “suggested guidelines for solid waste management.” 42 U.S.C. 6907(a). RCRA defines solid waste management as “the systematic administration of activities which provide for the collection, source separation, storage, transportation, transfer, processing, treatment, and disposal of solid waste.” 42 U.S.C. 6903(28).

Pursuant to section 1008(a)(3), the guidelines are to include the minimum criteria to be used by the states to define the solid waste management practices that constitute the open dumping of solid waste or hazardous waste and are prohibited as “open dumping” under section 4005. Only those requirements promulgated under the authority of section 1008(a)(3) are enforceable under section 7002 of RCRA.

RCRA section 4004 generally requires EPA to promulgate regulations containing criteria for determining which facilities shall be classified as sanitary landfills (and therefore not “open dumps”). The statute directs that, “at a minimum, the criteria are to ensure that units are classified as sanitary landfills only if there is no

reasonable probability of adverse effects on health or the environment from disposal of solid wastes at such facility.” 42 U.S.C. 6944(a).

RCRA section 4005(a), entitled “Closing or upgrading of existing open dumps” generally establishes the key implementation and enforcement provisions applicable to EPA regulations issued under sections 1008(a) and 4004(a). Specifically, this section prohibits any solid waste management practices or disposal of solid waste that does not comply with EPA regulations issued under RCRA section 1008(a) and 4004(a). 42 U.S.C. 6944(a). See also 42 U.S.C. 6903(14) (definition of “open dump”). This prohibition takes effect “upon promulgation” of any rules issued under section 1008(a)(3) and is enforceable through a citizen suit brought pursuant to section 7002. As a general matter, this means that facilities must be in compliance with any EPA rules issued under this section no later than the effective date of such rules, or be subject to a citizen suit for “open dumping” 42 U.S.C. 6945. RCRA section 4005 also directs that open dumps, *i.e.*, facilities out of compliance with EPA’s criteria, must be “closed or upgraded.”

Section 7004 lays out specific requirements relating to public participation in regulatory actions under RCRA. Subsection (b) provides that “[p]ublic participation in the . . . implementation, and enforcement of any regulation under this chapter shall be provided for, encouraged, and assisted by the Administrator.” 42 U.S.C. 6974(b).

A. Regulation of Solid Wastes Under RCRA Subtitle D

Solid wastes that are neither a listed nor characteristic hazardous waste are subject to the requirements of RCRA subtitle D. Subtitle D of RCRA establishes a framework for federal, state, and local government cooperation in controlling the management of non-hazardous solid waste. The federal role is to establish the overall regulatory direction, by providing minimum nationwide standards that will protect

human health and the environment, and to provide technical assistance to states for planning and developing their own environmentally sound waste management practices. The actual planning and any direct implementation of solid waste programs under RCRA subtitle D, however, remains a state and local function, and the Act envisions that states will devise programs to deal with state-specific conditions and needs. EPA has no role in the planning and direct implementation of the minimum national criteria or solid waste programs under RCRA subtitle D, and has no authority to enforce the criteria. However, states are not required to adopt solid waste management programs, and thus, Congress developed a statutory structure that creates incentives for states to implement and enforce the federal criteria, but that does not necessarily rely on or require a regulatory entity to oversee or implement them. While Congress developed the statutory structure to create incentives for states to implement and enforce the federal criteria, it does not require them to do so. As a result, subtitle D is also structured to be self-implementing.

RCRA sections 1008(a)(3) and 4004(a) delegate broad authority to EPA to establish regulations governing the management of solid waste. Under section 4004(a) EPA is charged with establishing requirements to ensure that facilities will be classified as sanitary landfills “only if there is no reasonable probability of adverse effects on health or the environment from the disposal of solid waste” at the facility. Or in other words, under section 4004(a) EPA is charged with issuing regulations to address all “reasonable probabilities of adverse effects” (*i.e.*, all reasonably anticipated risks) to health and the environment from the disposal of solid waste. Section 1008(a)(3) expands EPA’s authority to address the risks from any of the listed activities. Specifically, EPA is authorized to establish requirements applicable to “storage, transportation, transfer, processing, treatment, and disposal of solid waste.” (42 U.S.C. 6907(a), 6903(28)).

EPA interprets the standard in section 4004(a) to apply equally to criteria issued under sections 1008(a)(3) and 4004(a); namely that the criteria must ensure that a facility is to be classified as a sanitary landfill, and thus allowed to continue to operate, “only if there is no reasonable probability of adverse effects on health or the environment” from either the disposal or other solid waste management practices at the facility. Thus, under the combined authority conferred by sections 1008(a)(3) and 4004(a), a facility is an “open dump” if it engages in any activity involving the management of solid waste that does not meet the standard in section 4004(a); or in other words, any activity involved with the management of solid waste that presents a reasonable probability of causing adverse effects on health or the environment. EPA also interprets these provisions to authorize the establishment of criteria that define the manner in which facilities upgrade or close, consistent with the standard in section 4004(a), to ensure there will be no reasonable probability of adverse effects on health or the environment.

As discussed previously, Congress created a regulatory structure that limited EPA’s role to the creation of national criteria that would operate even in the absence of a regulatory entity to oversee or implement the criteria. Under RCRA section 4005(a), upon promulgation of criteria under section 1008(a)(3), any solid waste management practice or disposal of solid waste that constitutes the “open dumping” of solid waste is prohibited. The federal standards apply directly to the facility (are self-implementing) and facilities are directly responsible for ensuring that their operations comply with these requirements. States are not required to incorporate or implement these requirements under any state permitting program or other state law requirement, and EPA is not authorized to impose such requirements, directly or indirectly on the states. States and citizens may enforce this prohibition (and therefore, the federal criteria) using the authority under RCRA section 7002.¹

The statute also creates incentives to states to implement the criteria. Chief among the incentives is a greater role in implementation and enforcement of the solid waste program, including to a limited extent the ability to give facilities that are operating within their

¹ EPA also may act if the handling, storage, treatment, transportation, or disposal of such wastes may present an imminent and substantial endangerment to health or the environment, pursuant to RCRA section 7003.

state additional time to come into compliance with newly promulgated EPA criteria. Specifically, if the facility is located in a state with a plan that was approved under section 4003(b), the state may grant the facility an extension of up to five years from the date the final rule was published in the **Federal Register** to come into compliance with EPA regulations, provided: (a) The facility is listed in a state inventory of open dumps; and (b) the facility has demonstrated that it has considered other public or private alternatives for solid waste management to comply with the prohibition on open dumping and is unable to utilize such alternative. For facilities that meet these requirements, the state may establish a “schedule for compliance” which specifies a schedule of remedial measures, including an enforceable sequence of actions or operations, leading to compliance with the requirements “within a reasonable time (not to exceed five years from the date of publication of criteria under section [1008] (a)(3) of this title.” 42 U.S.C. 6945(a).

As a consequence of this statutory structure—the requirement to establish national criteria and the absence of any requirement for direct regulatory oversight—to establish the criteria EPA must demonstrate, through factual evidence available in the rulemaking record, that the final rule will achieve the statutory standard (“no reasonable probability of adverse effects on health or the environment”) at all sites subject to the standards based exclusively on the final rule provisions. This means that the standards must account for and be protective of all sites, including those that are highly vulnerable.

III. Background

A. EPA’s Proposed Rule

On June 21, 2010 (75 FR 35128), EPA proposed to regulate CCR under RCRA to address the risks from the disposal of CCR generated from the combustion of coal at electric utilities and independent power producers. As described in the proposal, CCR are residuals generated from the combustion of coal and include fly ash, bottom ash, boiler slag (all composed predominantly of silica and aluminosilicates), and flue gas desulfurization (FGD) materials (predominantly Ca-SO_x compounds) and can be managed in either wet (surface impoundments) or dry (landfills) disposal systems. EPA noted in the proposed rule that the constituents of most environmental concern in CCR are metals, such as antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury,

nickel, selenium, silver and thallium. EPA also presented data showing numerous instances where these constituents (especially arsenic) have leached at levels of concern from unlined and inadequately clay-lined landfills and surface impoundments.

In the proposal, EPA revisited its August 1993 and May 2000 Beville Regulatory Determinations regarding CCR generated at electric utilities and independent power producers. The results from this effort led the Agency to consider two primary options for the management of CCR and thus, propose two alternative regulatory strategies. Under the first option, EPA proposed to reverse its August 1993 and May 2000 Beville Regulatory Determinations (58 FR 42466 and 65 FR 32214 respectively) regarding CCR and to list these residuals as special wastes subject to regulation under subtitle C of RCRA when they are destined for disposal in landfills or surface impoundments. Under this proposed option, CCR would be regulated from the point of generation to the point of final disposition and would generally be subject to the existing subtitle C regulations at 40 CFR parts 260 through 268, as well as the permitting requirements in 40 CFR part 270, and the state authorization process in 40 CFR parts 271–272. Among other things, the regulatory requirements included waste characterization, location restrictions, liner and, if applicable, leachate collection requirements for land disposal units, fugitive dust controls, groundwater monitoring and corrective action requirements, closure and post-closure care requirements, financial assurance, permitting requirements, and recordkeeping and reporting requirements. This option also imposed requirements on generators and transporters of CCR destined for disposal, including manifesting (if the CCR destined for disposal is sent off-site). However, in light of practical difficulties in implementing certain subtitle C regulatory requirements, EPA also proposed to revise selected requirements under the subtitle C option. Consequently, EPA proposed, pursuant to its authority under section 3004(x) of RCRA, modifications to the CCR landfill and surface impoundment liner and leak detection system requirements, the effective dates for the land disposal restrictions, and the surface impoundment retrofit requirements. EPA also proposed to establish new land disposal prohibitions and treatment standards for both wastewater and non-wastewater forms of CCR. In part, the proposed

modifications to the treatment standards would result in the closure of existing surface impoundments and the prohibition of all new surface impoundments. (See 75 FR 35128 for a complete discussion of this proposed option).

Under the second option, EPA proposed to retain the August 1993 and May 2000 Bevill Regulatory Determinations and to regulate CCR disposal under subtitle D of RCRA by issuing national minimum criteria to ensure the safe disposal of CCR in surface impoundments and landfills. Under this option, CCR would remain classified as a non-hazardous RCRA solid waste. EPA proposed to establish technical requirements, many of which were nearly identical to the technical standards proposed under the subtitle C option. The technical standards included, among other things, locations standards, liner and leachate collection requirements, groundwater monitoring and corrective action standards for releases from the units, operating criteria, such as fugitive dust control, closure and post-closure care requirements, and recordkeeping and reporting requirements. Under this option, EPA did not propose to establish regulatory requirements that would restrict the generation, transportation, storage, or treatment of CCR prior to disposal, nor did EPA propose to establish financial assurance requirements under RCRA.² Also, because of subtitle D's limitations, the proposed rule did not require permits; nor could EPA enforce the national minimum criteria. Rather, states or citizens could enforce the national minimum criteria under RCRA's citizen suit authority, and states could continue to enforce any state regulation that applies to CCR under their independent state enforcement authority.

The subtitle D proposed option was designed to be self-implementing, meaning that the requirements were such that facilities could comply with

² In the proposal, the Agency stated that the RCRA subtitle D alternative did not include proposed financial responsibility requirements and that any such requirements would be proposed separately. The Agency solicited comment on whether financial responsibility requirements under CERCLA section 108(b) should be a key Agency focus under a RCRA subtitle D approach. While the Agency received numerous comments urging the Agency to establish financial responsibility as part of the subtitle D option, the CERCLA 108(b) option did not receive significant support. As discussed in the proposal and reiterated here, EPA will not be requiring financial assurance requirements as part of this rule. The Agency however will continue to investigate the use of other statutory authorities (e.g., CERCLA) to establish financial responsibility requirements for owners or operators of CCR landfills, CCR surface impoundments and any lateral expansion.

the regulatory requirements without the need to interact with a regulatory authority. EPA sought to enhance the protectiveness of the proposed option by requiring certified demonstrations by an independent registered professional engineer to provide verification that the regulatory requirements were being adhered to. In addition, the option provided for state and public notification of the certifications, as well as required posting of certain information on a Web site maintained by the facility and in the operating record. (See 75 FR 35128 for a complete discussion of this proposed option).³

The Agency also described other alternatives considered. For example, one subtitle D option, called "D-prime" was structured so that all existing CCR surface impoundments could continue to receive CCR after the effective date of the rule for the remainder of the unit's useful life, irrespective of their liner type, provided the other provisions of the subtitle D option were met (e.g., groundwater monitoring). (See 75 FR 35128 for a complete discussion of this and other possible regulatory alternatives on which the Agency solicited comment.)

Under both the subtitle C and subtitle D alternatives, EPA proposed establishing dam safety requirements to address the structural integrity of surface impoundments. EPA also proposed not to change the May 2000 Regulatory Determination for beneficially used CCR, which are currently exempt from the hazardous waste regulations under section 3001(b)(3)(A) of RCRA. EPA also did not propose to address the placement of CCR in mines, or non-minefill uses of CCR at coal mine sites.

In addition to proposing these two regulatory options for the management of CCR, EPA identified many issues on which it solicited comment, information, and data. Certain solicitations were very general, such as comments on alternative options for regulating CCR, while other requests for comment were very specific in nature, for example, whether clay liners designed to meet a specified hydraulic conductivity might perform differently in practices than modeled in the risk assessment. (The Agency requested comment on issues throughout the

³ While EPA cannot enforce the subtitle D proposed rules, EPA can take action under section 7003 of RCRA to abate conditions that "may present an imminent and substantial endangerment to health or the environment." EPA can also use the imminent and substantial endangerment authorities under the CERCLA, or under other federal authorities to address those circumstances where a unit(s) may pose a threat.

preamble; however specific issues for which EPA solicited comment can be found at 75 FR 35221–34224.)

B. Comments Received on the Proposed Rule

The Agency received over 450,000 comments on the proposed rule. The majority of the commenters focused on which regulatory path the Agency should pursue for regulating CCR, i.e., RCRA's subtitle C or subtitle D. A number of commenters, however, argued that no additional regulation was necessary and that the states were adequately regulating the management of CCR. Generally, environmental groups and individual citizens favored a subtitle C rule arguing that state programs have failed and damage cases are growing in number. State organizations, individual states, and industry groups (electric utilities, recycling firms, trade associations), largely favored a subtitle D rule with a permitting program.

One area that received extensive comment was the re-evaluation of the eight Bevill study factors.⁴ Numerous commenters provided detailed analysis related to the study factors and provided their own interpretations of the data (e.g., state programs and damage cases). Other areas that received significant comment included beneficial use and the risk assessment.

Discussion of the specific comments germane to this rulemaking are provided in the relevant sections of this document.

C. Other Actions During Which Comment Was Taken

1. Public Hearings

EPA conducted eight public hearings during the months of August, September, and October in 2010. There were over 1300 individual speakers at the eight public hearings that commented on the proposed rule. Testimony at the public hearings focused generally on whether EPA

⁴ In considering whether to retain or to reverse the August 1993 and May 2000 Regulatory Determinations regarding the Bevill exemption of CCR destined for disposal, the Agency re-examined the RCRA section 8002(n) study factors. These eight study factors are: (1) Source and volumes of CCR generated per year; (2) present disposal and utilization practices (which includes evaluation of existing state regulatory oversight and beneficial use); (3) potential danger, if any, to human health and the environment from the disposal and reuse of CCR; (4) documented cases in which danger to human health or the environment from surface runoff or leachate has been proved; (5) alternatives to current disposal methods; (6) the cost of such alternative disposal methods; (7) the impact of the alternative disposal methods on the use of coal and other natural resources; and (8) the current and potential utilization of CCR (see 75 FR 35128).

should adopt a subtitle C or subtitle D approach for regulating CCR. Many commenters were also concerned with fugitive dust emissions and the affect these emissions had on their health and overall well-being. Other commenters were concerned that adopting a subtitle C rule for CCR would negatively affect the beneficial use of the material. In addition to their testimonies that were entered into the rulemaking record, over 1200 additional documents were submitted in hard copy and entered into the docket (see EPA-HQ-RCRA-2009-0640).

2. Notices of Data Availability

Subsequent to the proposed rule, the Agency published several Notices of Data Availability (NODAs), the first on October 21, 2010, (75 FR 64974); the second on October 12, 2011 (76 FR 63252) and the third on August 2, 2013 (78 FR 46940). Specifically:

- The first NODA invited comment on the responses EPA received on Information Collection Requests that were sent to electric utilities on their CCR surface impoundments, as well as reports and materials related to the site assessments EPA had conducted on a subset of these impoundments.
- The second NODA invited comment on a number of topics, including (1) chemical constituent data from coal combustion residuals; (2) facility and waste management unit data; (3) information on additional alleged damage cases; (4) the adequacy of state programs; and (5) beneficial use.
- The third NODA invited comment on (1) supplemental data for the risk assessment; (2) supplemental data for the RIA; (3) information regarding large-scale fill; and (4) data on the CCR Assessment Program. EPA also sought comment on two technical issues associated with the requirements for CCR management units: closure requirements and regulation of overfills (*i.e.*, CCR management units built directly over pre-existing CCR landfills or CCR surface impoundments).

Specific comments received on each of the three NODAs are discussed in the relevant sections of this rule.

3. Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category Proposed Rule

On June 7, 2013 (78 FR 34432), EPA proposed a regulation that would strengthen the controls on discharges from certain steam electric power plants by revising the technology-based effluent limitation guidelines (ELG) and standards for the steam electric power generating point source category. As

part of this proposal, EPA discussed its current thinking on how a final RCRA CCR rule might be aligned and structured to account for any final requirements adopted under the ELG for the Steam Electric Power Generating point source category. Two primary means of integrating the two rules were discussed: (1) Coordinating the design of any final substantive CCR regulatory requirements and (2) coordinating the timing and implementation of the rules to allow facilities to coordinate their compliance planning and implementation and to protect electricity reliability for consumers. EPA stated that consistent with RCRA section 1006(b), effective coordination of any final RCRA requirements with the ELG requirements would be sought in order to minimize the overall complexity of the two regulatory structures, and facilitate implementation of engineering, financial, and permitting activities. EPA solicited comments on how any final CCR final rule might be aligned and structured to account for any final requirements adopted under the ELG for the Steam Electric Power Generation point source category.

D. EPA's CCR Assessment Program

In March 2009, the Agency's CCR Assessment Program (herein referred to as the Assessment Program) was initiated. This effort was in response to the December 22, 2008 dike failure of a coal ash impoundment at the Tennessee Valley Authority (TVA) Kingston Fossil Plant in Harriman, Tennessee where over one billion gallons of coal ash slurry were released, affecting more than 300 acres, including residences and infrastructure. The TVA Kingston impoundment failure ignited a nationwide concern over the safety of coal ash impoundments; and EPA was tasked with determining whether the potential existed for similar impoundment failures at other coal-fired power plants. In response, EPA developed the Assessment Program to evaluate the structural stability and safety of all coal ash impoundments throughout the country.⁵ As of September 2014, 559 impoundments had been assessed at over 230 coal-fired power plants.

The Assessment Program began as a separate effort from the development of

this final rule.⁶ However, the information and experience developed in carrying out the site assessments during the Assessment Program is directly relevant to many of the issues addressed in this rulemaking, and provide further technical support for many of the technical criteria. Consequently, many of the final technical criteria were developed in direct response to findings from the site assessments. For example, several of the technical criteria contained in the proposed rule were modified to account for the widely accepted engineering methodologies and practices used in conducting the site assessments, as well as current facility practices documented during the assessments. In a few instances, the criteria were supplemented to better align the technical requirements with the Assessment Program. Included among the final criteria that directly rely on the Assessment Program are the provisions relating to structural integrity assessments to address factors of safety, periodic reassessments, hazard potential classifications, and the hydrologic and hydraulic capacity of CCR surface impoundments. These requirements are further discussed in Unit VI of this preamble.

The Assessment Program focused on impoundments meeting four general criteria that were designed to identify the units most likely to present the same risks as the collapsed TVA impoundment: (1) Above ground or diked; (2) of sufficient height to be susceptible to structural failure (*i.e.*, six feet); (3) receiving CCR; and (4) located at operating coal-fired power plants selling power to the electric grid. Also included in the assessments were a number of inactive impoundments, *i.e.*, impoundments not receiving CCR but still containing CCR and/or liquid. The Agency included these inactive units in the assessment reasoning that these units would be as susceptible to structural failure as units currently receiving CCR, given that they still contained CCR and maintained an ability to impound liquid (*i.e.*, the unit had not been breached). The Assessment Program did not evaluate, however, incised (not having above ground berms or dikes) impoundments or landfills (not containing liquid slurried CCR wastes). EPA chose not to assess these units because they did not share the characteristics of

⁵ The focus of the Assessment Program was to assess the structural integrity of CCR impoundments meeting specified criteria. The Agency did not include, as part of its evaluation, the assessment of other conditions/characteristics of the impoundment that may present potential risks to human health or the environment, *i.e.*, groundwater contamination due to an insufficient liner design.

⁶ EPA issued two Notices of Data Availability (75 FR 35128 (October 21, 2010) and 78 FR 46940 (August 2, 2013)) specifically soliciting comment on the information generated by the Assessment Program and the materials posted on our Web site.

impoundments likely to raise concern for catastrophic releases, and because no known catastrophic structural failures were associated with these types of units.

Prior to initiating the assessments, EPA consulted with two key dam safety organizations, the Association of State Dam Safety Officials (ASDSO) and the Mine Safety and Health Administration (MSHA) to better understand how these federal and state dam inspection programs operated, including how earthen dams and impoundments were assessed.⁷ These groups provided the Agency with critical insight and information for inspecting and evaluating CCR impoundments. The Agency also reviewed various technical documents relating to dam safety and conducting impoundment inspections, many of which were recommended by these organizations. They were: (1) U.S. Army Corp of Engineers (USACE) 2008 National Inventory of Dams (NIDS); (2) Federal Emergency Management Agency's (FEMA) Federal Guidelines for Dam Safety—Hazard Potential Classification System for Dams (April 2004); (3) FEMA's Risk Prioritization Tool for Dams User Manual (March 2008); (4) MSHA's Handbook (PH07-01); (5) MSHA's Coal Mine Impoundment Inspection and Plan Review Handbook (October 2007); and (6) MSHA's Engineering and Design Manual: Coal Refuse Disposal Facility (May 2009); (7) ASDSO's "Summary of State Dam Safety Laws and Regulations," (2000); (8) ASDSO's "Owner Responsible Periodic Inspection Guidance," (2005); (9) "Guidelines for Inspections of Existing Dams." New Jersey Department of Environmental Protection—Dam Safety (January 2008).

In developing the criteria that were used to conduct the assessments, a standard rating system was developed to classify the units' suitability for continued safe and reliable operation. EPA modeled its impoundment condition rating criteria on those developed by the State of New Jersey (see reference above).

1. Conducting the Site Assessments

In order to prioritize the assessments, a preliminary hazard potential classification ranking was identified for each impoundment, based on criteria developed by the FEMA and found generally in USACE's NID. EPA elected to evaluate first those impoundments with a high hazard potential

classification, which signifies that a failure or mis-operation of the unit would probably result in the loss of human life.

Upon initiation of the Assessment Program, every owner or operator of a CCR impoundment was contacted by the Agency and supplied with information on the objectives of the assessment and how the assessments were to be conducted. Assessments were conducted in rounds, consisting of groups of 12–26 facilities per round.⁸ Prior to each site assessment, to ensure uniformity throughout the study, a statement of work and an impoundment field checklist was developed and adhered to during the assessment.

To ensure objectivity, EPA contracted with professional engineers (PEs) in the state where the impoundment was located who were experts in the area of dam safety to perform the site assessments. Each individual assessment was performed by PEs qualified in the areas of geotechnical engineering, hydrology and hydraulics, and overall dam safety. Upon evaluation of a robust set of technical documents addressing dam safety and inspections as well as comprehensive discussions with key dam safety organizations, the Assessment Program developed a comprehensive set of factors that were to be used to evaluate the overall safety of CCR surface impoundments, which concluded that, among other important factors, the static and seismic factors of safety, hydrologic and hydraulic capacity, liquefaction potential analysis and a post-liquefaction stability analysis if the soils of the embankment were identified to be susceptible to liquefaction, and operation and maintenance protocols, *e.g.* instrumentation monitoring, inspection program, emergency response protocols were critical parameters for assessing the overall safety of CCR surface impoundments.

The individual evaluations or assessments were conducted at each impoundment at each facility using standard, accepted engineering practices, including a visual assessment of the CCR surface impoundment, interviews with site personnel, a review of the history of the CCR surface impoundment, and a review of engineering documentation related to the design, construction, operation, and maintenance of the impoundments, including available technical analyses. At each site visit, additional

documentation was collected and reviewed as available, including descriptions, along with supporting information, of: (1) The impoundment, including location, size, age, design and/or alterations to the design, and the amount of residuals currently in the unit; (2) known, measured settlement of the impoundment embankment; (3) known, measured movement of the impoundment embankment; (4) observed erosion of the impoundment embankment; (5) seepage; (6) leakage; (7); observed cracking of the impoundment embankment; (8) deterioration, such as scarps, boils, or sloughs, of the — embankment; (9); seismicity; (10) internal stresses; (11) functioning of foundation drains and relief wells; (12) stability of critical slopes adjacent to the units; and (13) regional and site geological conditions. If available, state and federal inspections reports were also reviewed.⁹

In addition, for each assessment, the following factors were identified, to the extent feasible, for evaluation: (1) The presence and adequacy of spillways; (2) hydrologic and hydraulic capacity of the unit; (3) overall structural adequacy and stability of structures under all credible loading conditions through a review of static, seismic, and liquefaction analyses with determined factors of safety; (4) soil, groundwater, surface water, geology, and geohydrology characteristics associated with the unit, including hydrological data accumulated since the impoundment was constructed or last inspected; (5) a history of the performance of the management unit through analysis of data from monitoring instruments, interviews with facility personnel, and review of available operating records; (6) quality and adequacy of maintenance, surveillance, and methods of unit operations for the protection of public safety; (7) location of schools, hospitals, or other critical infrastructures within five miles down gradient of the impoundment; and (8) whether the impoundment is located within federally designated flood plains. Finally, each impoundment and any associated spillways were evaluated to determine whether the impoundment and the spillways could withstand the loading or overtopping from appropriate inflow design flood events.

Each CCR surface impoundment was classified with a hazard potential classification following the New Jersey Department of Environmental Protection

⁷ ASDSO identified for EPA key documents to review including Federal Energy Regulatory Commission (FERC) and MSHA guidance.

⁸ The results of this effort are either presented on a facility by facility basis or are summarized by round. All of these data have been posted on the Agency Web site.

⁹ It is important to note that during the assessment, no physical drilling, coring or sampling was conducted, while on site; however, studies were reviewed that often included such information.

Bureau of Dam Safety and Flood Control's hazard potential ranking. Each impoundment was classified with a hazard potential classification of either; "high," "significant," "low," or "less-than-low." The hazard potential classification was a qualitative assessment of the potential adverse incremental consequences of a dam failure.

At the conclusion of each assessment, a report was generated and the impoundment was given a condition rating of either; satisfactory, fair, poor, or unsatisfactory. The condition ratings were based on the availability of information on the unit and evaluation of the previously mentioned factors, including the static, seismic, and liquefaction factors of safety. No impoundments received an "unsatisfactory" rating. Numerous impoundments were, however, rated as "poor," often for lack of appropriate technical documentation in the aforementioned areas. "Poor" or "fair" ratings were also an indication that additional measures were needed to improve the stability of the unit. Of 559 impoundments assessed, 241 received a condition rating of "satisfactory," 166 received a condition rating of "fair," and 152 received a "poor" condition rating.

It is important to note that the condition rating did not necessarily imply that the unit had inadequate structural integrity. On the contrary, in many instances a structurally sound impoundment may have been given a condition rating of "fair" or "poor" based on other factors such as a lack of documented information on the unit or insufficient operations and maintenance protocols. For example, an impoundment could be rated as "poor" if it lacked the appropriate technical documentation and analyses regarding structural or hydrologic and hydraulic analyses. EPA rated numerous units as "poor" based primarily on unavailable technical analyses.

Once the assessment was performed, a draft report was prepared. Draft reports were reviewed by the appropriate state agency, the utility, and by EPA.¹⁰ Once comments were received and incorporated, a final report was issued along with recommendations for additional actions to be taken by the facility (if needed). Facilities then

developed action plans and schedules to implement the recommendations. EPA also informed facility owners and operators that in addition to implementing their action plans, they need to adopt an ongoing, routine program to assess each surface impoundment and to take necessary corrective measures to ensure the units' continued structural integrity.

2. Assessment Program Findings

Upon completion of the Assessment Program, a review was undertaken to ascertain the key findings or lessons learned from the effort. These key findings included: (1) The majority of CCR surface impoundments are currently inspected on a periodic basis; (2) most utilities were readily able to supplement outdated or missing information with new or updated evaluations of their impoundments after the on-site portion of EPA's assessment was conducted; (3) in response to the assessment report recommendations, facilities typically willingly conducted remedial actions; (4) interaction with the states and the utilities assured accuracy in the final assessment reports; (5) placing site assessment materials on an internet site assured that the public, states, and utilities had full access to information about the design and operation of CCR impoundments and did not present either homeland security or other confidentiality concerns; (6) static, seismic, and liquefaction analyses did not pose a significant technical or cost burden on facilities since many already routinely conducted these types of evaluations; (7) state regulatory bodies viewed the assessments as a means to further support existing assessment programs; and (8) the use of PEs to certify all final reports ensured that the assessments reflected the PE's best judgments.

3. Assessment Program's Support for the Structural Integrity Requirements of the Rule

As noted, the findings from EPA's Assessment Program provide technical and factual support for many of the final requirements for structural stability in this rule. A more detailed discussion of several of the most significant of these is presented below. Additional discussion of the relevance of these findings is included throughout Unit VI of this document.

a. Periodic Inspections/Assessments

Consistent with the findings from the assessments and with EPA's recommendations to facilities as part of the Assessment Program, this rule requires that all CCR surface

impoundments be inspected at intervals not exceeding seven days for any appearances of actual or potential structural weakness and other conditions that are disrupting or have the potential to disrupt the operation or safety of the CCR surface impoundment. Monitoring of instrumentation is also required to be conducted at intervals not exceeding 30 days. The Assessment Program found that virtually all utility companies conduct some sort of periodic inspection or monitoring at CCR surface impoundments, although practices varied among facilities and between states. The Assessment Program also found that while many facilities were conducting regularly scheduled inspections, some did not adequately document the results of these inspections.

In the final rule, CCR surface impoundments exceeding a specified size threshold, *i.e.*, height of five feet or more and capacity of 20 acre-feet or more or a height of 20 feet or more, are required to perform annual inspections as well as two assessments of structural stability quinquennially, (*i.e.*, every five years) that include a structural stability assessment of specified parameters and a factor of safety assessment. Annual inspections are broader in scope than weekly inspections and are conducted to ensure that the design, construction, operation and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. Annual inspections must include a review of available information regarding the status and condition of the unit and a visual inspection to identify signs of distress or malfunction of the unit and appurtenant structures. The annual inspections must be conducted by a qualified professional engineer.

The Assessment Program also reviewed how detailed structural stability reviews and inspections were recommended to be conducted by FEMA, MSHA, and the USACE guidelines and found that such inspections were recommended to take place every three to five years. Review of state dam safety programs demonstrated that similar detailed inspections were also conducted on a three-to-five year cycle. Therefore, in the final rule, EPA is requiring that structural integrity assessments, including the calculation of factors of safety under various loading conditions, be conducted within 18 months of publication of the rule, and be repeated every five years. The five year review timeframe is based on documentation showing that the factual bases for such reviews are only sound for that time

¹⁰ As noted many times in this document, states play a critical role in implementing and overseeing these units. To assist states in this effort, EPA has, in the majority of cases directly provided the states with all of the information from our assessments. The Assessment Program reports may be accessed at: <http://www.epa.gov/wastes/nonhaz/industrial/special/fossil/surveys2/index.htm>.

period, and is consistent with federal dam safety guidance, specifically FEMA. FEMA recommends in *Federal Guidelines for Dam Safety* that dams be formally assessed at a frequency not to exceed five years by a qualified professional engineer. EPA has adopted this timeframe to maintain consistency with FEMA guidance. The inspection and assessment requirements in this rule will ensure that there are consistent and uniform inspection and assessment practices across states and facilities and will ensure that problems related to their stability will be promptly identified and remediated as necessary.

b. Static, Seismic, and Liquefaction Factors of Safety

(1) Static Factors of Safety.

Factor of safety (FOS) means the ratio of the forces tending to resist the failure of a structure, as compared to the forces tending to cause such failure as determined by accepted engineering practice. This analysis is used to determine whether a CCR surface impoundment's dikes are engineered to withstand the specific loading conditions that can be reasonably anticipated to occur during the lifetime of the unit without failure of the dike, if accepted good engineering practices are employed. Static factors of safety refer to the factors of safety (FOS) under static loading conditions that can reasonably be anticipated to occur during the lifetime of the unit. Static loading conditions are unique from other loading conditions (e.g., seismic, liquefaction) in that static loading conditions are those which are in equilibrium, meaning the load is at rest or is applied with constant velocity.

EPA reviewed a series of USACE guidance documents addressing how to determine static FOS. These documents included, but were not limited to, Engineer Manual EM 1110-2-1902 "Slope Stability" (October 2003), and EM 1110-2-1902 "Stability of Earth and Rock-Fill Dams." The Agency also assessed the recommendations on how to conduct static analysis contained in the Engineering and Design Manual for Coal Refuse Disposal Facilities, originally published by the Mining Enforcement and Safety Administration (MESA) in 1975 and updated for MSHA in May 2009, and in particular Chapter 6, "Geotechnical Exploration, Material Testing, Engineering Analysis and Design." Based on recommendations from ASDSO, among others, the Agency adopted the USACE guidance to determine static FOS, both in the Assessment Program and in this rulemaking, as these manuals are recognized throughout industry as the

standard routinely used in field assessment of structural integrity.

In EPA's Assessment Program all CCR units were assessed to determine their static FOS. Each assessment classified a CCR unit as having sufficient structural stability under static loading conditions if analysis of critical sections of embankments demonstrated FOS that met or exceeded the values defined by USACE for static specific loading conditions. EPA found that most CCR surface impoundments exhibited sufficient calculated factors of safety under static loading conditions. EPA also found that in those CCR units which insufficient factors of safety against failure due to static loading were calculated, the owner or operator was able to implement actions which increased the factors of safety under static loading conditions to acceptable levels. Oftentimes, these implemented actions were of a simple nature, such as installing riprap (rock armoring the slopes) or buttressing the slopes.

Similarly, this rule adopts the static FOS from USACE Engineer Manual EM 1110-2-1902 "Slope Stability," with the exception of the rapid drawdown loading condition,¹¹ which was determined not to be relevant to CCR surface impoundments. EPA found the factors of safety identified by EM 1110-2-1902, specifically the Maximum Storage pool, Maximum Surcharge pool, and End-Of-Construction loading conditions, provided consistent, achievable levels of safety in CCR surface impoundment dikes, comprehensively assessed static stability, and provided sufficient

¹¹ Rapid (or sudden) drawdown is a condition in earthen dikes that may develop when the embankment becomes saturated through seepage during a high pool elevation in the reservoir. Rapid drawdown becomes a threat to the dike when the reservoir pool is drawn down or lowered at a rate significantly higher than the excess pore water pressure within the dike can dissipate. Typically, rapid drawdown scenarios are considered for dikes with reservoirs used for water supply and management or agricultural supply. In these scenarios, a high pool elevation is maintained in the reservoir in storage months. Subsequently, the water supply is drawn on in months where there is a demand for the reservoirs contents. This drawing down of the pool can present issues for the structural integrity of the unit. However, the management of CCR surface impoundments differs from that of conventional water supply reservoirs. CCR surface impoundments are never used for water supply, and the only instance in which EPA determined through its Assessment Program that rapid drawdown loading conditions would be relevant to CCR surface impoundments was in the event that the CCR surface impoundment had already released the contents of the impoundment through a breach of the dike or emergency discharge. Since the threat of release of CCR and the reservoir has already been realized, any failure due to rapid drawdown of the embankment is no longer critical to the overall containment of the now-released contents of the CCR unit.

consideration of compounding stresses on dikes (e.g., factors of safety values greater than 1.00 to account for unanticipated loadings acting in conjunction or misidentified strength of materials).

(2) Seismic Factor of Safety.

Seismic FOS means the FOS determined using analysis under earthquake conditions for a seismic loading event, based on the U.S. Geological Survey (USGS) seismic hazard maps for seismic events with a specified return period for the location where the CCR surface impoundment is located. The seismic FOS analysis is used to determine whether a dam would remain stable during an earthquake or other seismic event. The Agency relied on guidance from USACE and MSHA to evaluate the appropriate methods to determine if a dam would remain stable during a seismic event. This includes the USACE guidance Engineer Circular 1110-2-6061: Safety of Dams—Policy and Procedures 2204, Engineer Circular 1110-2-6000: Selection of Design Earthquakes and Associated Ground Motions 2008, and Engineer Circular 1110-2-6001: Dynamic Stability of Embankment Dams 2004). EPA also reviewed MSHA's 2009 Engineering and Design Manual for Coal Refuse Disposal Facilities, in particular Chapter 7, "Seismic Design: Stability and Deformation Analyses." These documents are viewed by ASDSO, FEMA and MSHA as generally accepted guidance on how to conduct seismic stability analyses.

As noted earlier, in performing the assessments, EPA directed its engineering contractors to assess seismic stability of CCR impoundments during and following a seismic event with a 2% probability of exceedance in 50 years (i.e. probable earthquake within approximately 2,500 years) and a horizontal spectral response acceleration for 1.0-second period (5% of Critical Damping). EPA selected this return period for determining the maximum design earthquake (MDE) by first considering the operating life anticipated for CCR surface impoundments. EPA has identified the operating life of CCR surface impoundments to range between 40-80 years. EPA then consulted the United States Geological Survey (USGS) and ASDSO to determine a conservative probability that should be used in the assessments.¹² To reduce the likelihood of a CCR unit failing during a seismic

¹² Wieland, M., "Seismic Design and Performance Criteria for Large Storage Dams", Proc. 15th World Conf. on Earthquake Engineering, Lisbon, Portugal, Sep. 24-28, 2012.

event, the Agency assessed various return periods and chose a conservative 2500 year return period. The use of this "return" period was chosen because it is conservative, reflects the fact that many CCR impoundments are located in active seismic zones, and the use of a conservative "return" period ensures that if a unit meets the seismic FOS it is unlikely to fail under most seismic events. By evaluating seismic stability under a conservative return period and requiring the unit to maintain structural stability under that design seismic event, the likelihood of a seismic event occurring at the location of the CCR surface impoundment in which the strength of the unit is exceeded and the unit fails is considerably reduced. Additionally, the unit can reasonably be anticipated to withstand seismic events of a more frequent return period (*i.e.*, smaller magnitude).

The Agency assessed CCR impoundments and classified them as having seismic stability if modeling results of critical failure surfaces were calculated to have a FOS greater than 1.0 under the specified seismic loading condition. The Assessment Program found that most CCR impoundments did meet the required seismic FOS. This rule also adopts this seismic stability FOS under the 2% probability of exceedance in 50 years event.

The Assessment Program found that many CCR impoundments had not undergone static or seismic analyses in sufficient detail that an independent professional engineer could assert that they were stable. The assessments gave impoundments a condition rating of "poor" if the utility was unable to provide static and seismic studies of their units conducted in a fashion which represented acceptable professional engineering practice. As the Assessment Program advanced, many utilities independently conducted new or updated static and seismic analyses of CCR surface impoundments in anticipation of their facilities being assessed. By the end of the program, virtually all facilities had conducted or were in the process of conducting static and seismic analyses. While some utilities noted concern over the costs of conducting additional static or seismic stability studies, none found that completing these studies presented any significant engineering challenges.

(3) Liquefaction Factors of Safety

Liquefaction FOS means the factor of safety determined using analysis under liquefaction conditions. Liquefaction is a phenomenon which typically occurs in loose, saturated or partially-saturated soils in which the effective stress of the

soils reduces to zero, corresponding to a total loss of shear strength of the soil. The most common occurrence of liquefaction is in loose soils, typically sands. The liquefaction FOS determination in the final rule is used to determine if a CCR unit would remain stable if the soils of the embankment of the CCR unit were to experience liquefaction. EPA relied primarily on one source to evaluate the appropriate methods to determine if a dam would remain stable under liquefaction conditions. This source was "Soil Liquefaction during Earthquakes," Idriss and Boulanger, Earthquake Engineering Research Institute, 2008.¹³ EPA also reviewed several technical resources regarding soil liquefaction, including "Ground Motions and Soil Liquefaction During Earthquakes," Seed and Idriss, 1982,¹⁴ "Liquefaction Resistance of Soils: Summary report from the 1996 and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils," Youd and Idriss, 2001,¹⁵ and *Seismic Design Guidance for Municipal Solid Waste Landfill Facilities*, US EPA, Office of Research and Development, 1995.¹⁶ These documents are viewed as generally accepted guidance on how to conduct liquefaction potential analyses and residual strength analyses under post-liquefaction conditions.

As noted earlier, in performing the assessments, EPA assessed the liquefaction potential of soils that compose the embankments of the CCR unit to determine if the soils present in the embankment were of the soil classification and configuration that was susceptible to liquefaction. This determination was based on evidence available through interviews with facility personnel, construction documentation, or representative soil sampling, such as information provided by corings and borings. Identical to the requirements for seismic factor of safety calculation, EPA selected a return

period for a seismic event for analysis of liquefaction potential, under a seismic loading which may induce liquefaction in embankments, of a 2% probability of exceedance in 50 years. The discussion of the selection of this return period can be found in the "Seismic Factor of Safety" section above.

The Agency assessed CCR impoundments and classified them as having stability under liquefaction conditions if representative soil sampling, anecdotal evidence from interviews with facility personnel, or construction documentation indicated that there was no susceptibility to liquefaction of the embankment soils or if modeling or analysis in critical failure planes in the embankment expected to be susceptible to liquefaction were calculated to have a FOS greater than 1.00 under post-liquefaction conditions. The Assessment Program found that most CCR surface impoundments did not contain soils in detrimental volumes or configurations in the embankment that would indicate susceptibility to liquefaction. However, the assessment effort found that in embankments with a presence of soils susceptible to liquefaction, most CCR surface impoundments did not meet the required liquefaction FOS.

The Assessment Program found that many CCR surface impoundments had not undergone liquefaction potential analyses or post-liquefaction residual strength analyses in those instances in which liquefaction potential was identified (*i.e.*, soils subject to liquefaction were present). The assessments gave impoundments a condition rating of "poor" if there was no information available to characterize the soils of the embankment, and a condition rating of "poor" or "fair" if post-liquefaction residual strength analysis of soils previously identified as being susceptible to liquefaction had not been available, with the rating dependent on the determined severity of the liquefaction potential in the embankment. Impoundments with calculated liquefaction factors of safety which did not meet or exceed 1.00 were given a condition rating of "poor."

As the Assessment Program advanced, many utilities independently conducted new or updated liquefaction potential analyses or residual strength analyses of CCR surface impoundments in anticipation of their facilities being assessed. By the end of the program, virtually all facilities had conducted or were in the process of conducting liquefaction potential analyses or residual strength analyses. While some utilities noted concern over the costs of

¹³ <https://www.eeri.org/products-page/monographs/soil-liquefaction-during-earthquakes-3/>.

¹⁴ Seed, H. B., and Idriss, I. M., 1982, "Ground Motions and Soil Liquefaction During Earthquakes," Monograph No. 5, Earthquake Engineering Research Institute, Berkeley, California, pp. 134.

¹⁵ Youd, T. L., Idriss, I. M., 2001, "Liquefaction Resistance of Soils: Summary report from the 1996 and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils." *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE.

¹⁶ United States EPA, Office of Research and Development, 1995, EPA/600/R-95/051, RCRA Subtitle D (258) Seismic Design Guidance for Municipal Solid Waste Landfill Facilities. Available as of the Writing of this policy at www.epa.gov/clhtml/pubtitle.html on the U.S. EPA Web site.

conducting additional liquefaction potential or residual strength studies, none found that completing these studies presented any significant engineering challenges.

Based on its experience in the Assessment Program and subsequent review of numerous technical resources, EPA determined that a post-liquefaction residual strength factor of safety in the embankment of 1.00 is not sufficient. Liquefaction potential analysis and post-liquefaction residual strength analysis involves a larger degree of uncertainties, e.g., liquefiable stratum configuration, in assumptions and analysis which must be accounted for with a factor of safety above 1.00. The final rule therefore requires CCR surface impoundments which are constructed of soils determined to be susceptible to liquefaction to meet or exceed a liquefaction factor of safety of 1.20. EPA has determined that 1.20 is an appropriate liquefaction factor of safety based on several technical guidances and memos, including *Federal Guidelines for Dam Safety: Earthquake Analyses and Design of Dams*, Document 65, FEMA May 2005, which states that “post-liquefaction factors of safety are generally required to be a minimum of 1.2 to 1.3.”^{17 18 19 20 21}

c. Impoundment Height and Relationship to Regulatory Requirements

During the Assessment Program, the Agency reviewed the stability issues related to various heights of impoundments. The Assessment Program concluded that impoundments with heights less than five feet or those retaining less than 20 acre feet were unlikely to cause significant environmental or economic loss should they undergo a catastrophic failure. The Agency’s review of MSHA and FEMA guidance also noted that “small” units were unlikely to cause significant losses should they fail. Based on the Agency’s experience and FEMA and MSHA’s guidance, the Agency has concluded

¹⁷ US Bureau of Reclamation (USBR), “Water Operation and Maintenance Bulletin No. 222,” Denver, Colorado, December 2007.

¹⁸ <http://www.oregon.gov/odot/hwy/bridge/docs/bddm/pdfs/psha.pdf>.

¹⁹ Canadian Dam Association. Canadian Dam Safety Guidelines, 2007, 88 pp.

²⁰ Sonmez, H., 2003. Modification of the liquefaction potential index and liquefaction susceptibility mapping for a liquefaction-prone area (Inegol, Turkey). *Env. Geology*, (44): 862–871.

²¹ Seed, R.B., Cetin, O.K., Moss, R.E.S., Kammerer, A.M., Wu, J., Pestana, J.M., Riemer, M.F., Sancio, R.B., Bray, J.D., Kayen, R.E., Farris, A., 2003. Recent advances in soil liquefaction engineering: a unified and consistent framework, 26th annual ASCE L.A. Geot. Spring Sem., Long Beach, California, April 30, 71 pp.

that there is a substantial benefit in having impoundments which exceed a specified size threshold, i.e., height of five feet or more and capacity of 20 acre-feet or more or a height of 20 feet or more determine their static, seismic, and liquefaction FOS on a regular basis. The analyses and experience gained in conducting the Assessment Program indicates that a catastrophic failure of a CCR surface impoundment is unlikely to occur so long as the factors of safety are maintained or exceeded throughout the unit’s operating life. This conclusion is also consistent with relevant guidance and regulations which do not require such evaluations for units below a certain size threshold.

d. Hazard Potential Ratings

Each impoundment assessed in the Assessment Program was given a Hazard Potential Classification rating of either *Less-than-Low, Low, Significant, and High*. Previous classifications were reviewed and amended as necessary to reflect guidance developed for the Assessment Program. The hazard potential ratings refer to the potential for loss of life or damage if there is a dam failure. The ratings do not refer to the condition or structural stability of the dam. Four hazard potential classifications were used in assessing the impoundments in the Assessment Program:

High Hazard Potential—Dams assigned the high hazard potential classification are those where failure or mis-operation will probably cause loss of human life.

Significant Hazard Potential—Dams assigned the significant hazard potential classification are those dams where failure or mis-operation results in no probable loss of human life, but can cause economic loss, environment damage, disruption of lifeline facilities, or impact other concerns. Significant hazard potential classification dams are often located in predominantly rural or agricultural areas, but could be located in areas with population and significant infrastructure.

Low Hazard Potential—Dams assigned the low hazard potential classification are those where failure or mis-operation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the owner’s property.

Less Than Low Hazard Potential—Dams which do not pose high, significant, or low hazard potential.

There is a substantial benefit in having owners or operators of all CCR impoundments determine the hazard potential classification of their units.

The Assessment Program found that many CCR surface impoundments had not been given a hazard potential classification and consequently, their potential threat to human health and the environment if a failure were to occur was not clearly identified, nor had response plans been developed to respond to any catastrophic failure. Moreover, these classifications should be updated over time, particularly to account for changes such as population growth, construction of key infrastructure, or changes to the impoundment’s size or operation. The Assessment Program also found that some states do not classify CCR impoundments as “dams” and therefore those units may not be required to determine their hazard potential classification or otherwise evaluate the potential effects of a catastrophic failure. Consistent with the guidance from ASDSO, FEMA, and the state of New Jersey, this rule requires that all diked CCR impoundments determine their hazard potential classification according to the definitions set out in this regulation. For those units with a hazard potential classification of significant or high, the owner or operator of such impoundments is also required to develop an Emergency Action Plan to address the higher potential impacts of a potential failure.

e. Condition Ratings

While the rule does require facilities to evaluate the same engineering factors that went into developing these ratings, the rule does not require that each impoundment be given a condition rating. After evaluation of the use of these ratings, the Agency determined that the rating may have relied too heavily on subjective factors. For that reason, this rule requires that the qualified professional engineer certify, based on quantitative determinations, that an impoundment meets the requirements for FOS and hydraulic and hydrologic capacity. This approach is less subjective and allows the professional engineer to make quantifiable certifications.

IV. Bevill Regulatory Determination Relating to CCR From Electric Utilities and Independent Power Producers

As discussed in the preceding sections, in the proposed rule EPA reopened its August 1993 and May 2000 Regulatory Determinations regarding CCR generated at electric utilities and independent power producers, to re-evaluate whether regulation of CCR under RCRA subtitle C is necessary in light of subsequent information. EPA explained that this was based on several

relatively recent developments, such as a newly completed quantitative risk assessment that concluded that the disposal of CCR in unlined waste management units posed substantial risks, with upper end risk estimates ranging from 10^{-2} – 10^{-4} . Citing to the recent structural failures of surface impoundments, the proposed rule also noted that these wastes have caused greater damage to human health and the environment than EPA originally estimated. Finally, EPA explained that recently collected information regarding the existing state regulatory programs had called into question whether those programs, in the absence of national minimum standards specific to these wastes, had sufficiently improved to address the gaps originally identified in the May 2000 Regulatory Determination. EPA ultimately concluded that federal regulation of this material was necessary, but did not reach any conclusion as to whether regulation under subtitle D would be sufficient or whether regulation under subtitle C would be necessary to adequately address the risks.

Of the over 450,000 comments received on the proposed rule, the vast majority focused on whether the Bevill exemption should be retained, and the corresponding question of whether CCR regulations should be established under RCRA subtitle C or subtitle D. In terms of the sheer numbers, the majority of commenters supported a decision to revoke the Bevill exemption and to regulate CCR under a subtitle C rule. These commenters, largely individual members of the public and environmental groups, generally argued that the Bevill exemption should be revoked because state programs have failed to adequately regulate the disposal of CCR and because the risks associated with the management of these wastes are significant. In support of both points, these commenters pointed to the fact that the number of damage cases that have been discovered has increased substantially since the original 2000 Regulatory Determination, and have continued to grow since publication of the proposed rule in 2010.

By contrast, state organizations, individual states, and industry groups (electric utilities, recycling firms, trade associations), largely favored a subtitle D rule. Overall, these commenters raised concern about the costs of the subtitle C regime, arguing that the subtitle C requirements were more stringent than necessary to address the risks from CCR disposal. Commenters also raised concern that regulation of these wastes under subtitle C would negatively affect

the beneficial use of these materials, arguing that the stigma associated with regulating the disposal of CCR as a hazardous waste would “cripple” the current beneficial reuse market. Many of these commenters also argued that EPA lacks the legal authority to regulate these wastes under subtitle C on a variety of grounds, including claims that EPA entirely lacks the authority to revisit its Bevill Regulatory Determination, and that EPA had failed to comply with statutory procedures in doing so.

A. Deferral of a Final Decision on the Bevill Regulatory Determination for CCR Destined for Disposal

In determining whether the Bevill exemption should be retained for CCR, EPA must evaluate and weigh eight factors that were enumerated in section 8002(n) of RCRA, 42 U.S.C. 6921(b)(3)(C). The eight factors are: (1) The source and volumes of CCR generated per year; (2) present disposal and utilization practices; (3) potential danger, if any, to human health or the environment from the disposal and reuse of CCR; (4) documented cases in which danger to human health or the environment from surface run-off or leachate has been proved; (5) alternatives to current disposal methods; (6) the cost of such alternative disposal methods; (7) the impact of those alternatives on the use of coal and other natural resources; and (8) the current and potential utilization of CCR, 42 U.S.C. 6982(n).

EPA addressed each of these study factors in the 1988 and 1999 Reports to Congress, and in reaching our decisions in the August 1993 and the May 2000 Regulatory Determinations to maintain the Bevill exemption for CCR. 58 FR 42466 (August 9, 1993); 65 FR 32214 (May 22, 2000). Consequently, in considering whether to reverse these Regulatory Determinations for CCR destined for disposal, EPA reexamined the RCRA section 8002(n) study factors against all of the available data, which included both the data that formed the basis for the May 2000 Regulatory Determination and the most recent data available. (See 75 FR 35150–35156.)

As discussed at length in the proposed rule, three of these factors weighed the most heavily in the Agency’s decision to reconsider its previous Regulatory Determinations. (See 75 FR 35133 and 35156–35158.) The first of these related to the extent of the risks posed by the current management of these wastes. Since the 2000 Regulatory Determination, EPA had completed a quantitative risk assessment that estimated significant

risks to human health and the environment. EPA’s 2010 CCR risk assessment estimated the cancer risk from arsenic that leaches into groundwater from CCR managed in units without composite liners to exceed EPA’s typical risk thresholds of 10^{-4} to 10^{-6} . For example, depending on various assumptions about disposal practices (e.g., whether CCR is co-disposed with coal refuse), groundwater interception and arsenic speciation, the 90th percentile risks from unlined surface impoundments ranged from 2×10^{-3} to 1×10^{-4} . The risks from clay lined surface impoundments ranged from 7×10^{-2} to 4×10^{-5} . Similarly, estimated risks from unlined landfills ranged from 5×10^{-4} to 3×10^{-6} , and from 2×10^{-4} to 5×10^{-9} for clay-lined landfills. EPA’s risk assessment also estimated Hazard Quotients (HQs)²² above 1 for other metals, including selenium and lead in unlined and clay-lined units. However, a number of technical questions were raised regarding this quantitative risk assessment that called into question the accuracy of these risk estimates.

A second and equally significant consideration related to how effectively state regulatory programs address the risks associated with the improper management of these wastes. The existing reports on state regulatory programs had called into question whether the trend in improving state regulatory regimes that EPA identified in May 2000 had materialized to the degree anticipated in the Regulatory Determination. EPA noted concern about the lack of substantial details regarding the full extent of state regulatory authority over the disposal of these materials, and the manner in which states have, in practice, implemented this oversight.

The final consideration, which is tightly related to the first two, was the recent information documenting continued instances involving the contamination of ground or surface water from the management of these wastes. Since the 2000 Regulatory Determination EPA had gathered or received information on 67 “proven or potential” cases involving damage to (i.e., contamination of) ground and surface water, and to human health and the environment from improper management of CCR in landfills and surface impoundments. These also included cases involving the structural failure of surface impoundments and the catastrophic release of CCR.

²² For more information on HQs please see Unit X. Risk Assessment of this preamble.

For each of these key areas, EPA identified a number of issues on which the absence of critical information prevented the Agency from reaching an initial decision on whether to revise the Beville Determination. Some of these issues or uncertainties have been resolved during the development of the final rule, either as a result of information received from commenters or through additional information and analyses EPA obtained or developed, which were held out for comment in subsequent NODAs. See 75 FR 35128 (October 21, 2010) and 78 FR 46940 (August 2, 2013). However, as discussed in more detail below, critical information necessary to make a final Regulatory Determination is still lacking in two of these three areas. This information bears directly on the extent and magnitude of the risks over the course of the next several years, and the degree to which those risks can be managed sufficiently under each of the two regulatory structures available to the Agency. In the absence of this information, EPA is unable to reach a conclusion on the issue that is central to a Beville Determination: Whether the risks presented by management of CCR waste streams can only be adequately mitigated through regulation under RCRA subtitle C. As a consequence, EPA is deferring a final Regulatory Determination for these wastes.²³

Nevertheless, the record is clear that current management of these wastes can present, and in many cases has presented, significant risks to human health and the environment. Although EPA cannot reach conclusions as to the full extent or magnitude of those risks over the long term, the current level of risk clearly warrants the issuance of federal standards to ensure consistent management practices and a national minimum level of safety.

In the following sections, EPA describes the information that was obtained over the course of the rulemaking relating to each area of concern, and the extent to which the new information addressed the issue.

²³ Because EPA is deferring its final Beville Determination, EPA has not responded to comments that pertain exclusively to that issue. However EPA has responded to significant comments that relate to topics that are otherwise relevant to the final subtitle D regulation. For example, because EPA is relying on the damage cases to support certain aspects of the technical requirements, EPA has responded to comments relating to the accuracy of the facts involved in the damage cases. EPA has not, however, responded to many comments on state programs because the Agency has made no final conclusions on the adequacy of those programs and is not relying on state programs to support any of the final rule's provisions.

1. Risks Posed by Current Management of CCR and Potential Danger to Human Health From the Disposal of CCR

In the proposed rule, EPA specifically noted that several uncertainties remained in the Agency's quantitative risk analysis of the current management of CCR. Chief among these uncertainties was the evolving character and composition of CCR due to electric utility upgrades and retrofits of multi-pollutant controls needed to comply with the emerging Clean Air Act (CAA) requirements, which could present new or otherwise unforeseen contaminant issues (e.g., addition of calcium bromide to coal prior to combustion increasing mercury capture; use of selective catalytic reduction for post-NO_x controls forming hexavalent chromium). As EPA explained, changes to fly ash and other types of CCR is expected to occur as a result of increased use and application of advanced air pollution control technologies in coal-fired power plants. These technologies include flue gas desulfurization (FGD) systems for SO₂ control, selective catalytic reduction (SCR) systems for NO_x control, and activated carbon injection (ACI) systems for mercury control. These technologies are being installed or are expected to be installed in response to federal regulations, state regulations, legal consent decrees, and voluntary actions taken by industry to adopt more stringent air pollution controls. Use of these more advanced air pollution control technologies reduces air emissions of metals and other pollutants in the flue gas of a coal-fired power plant by capturing and transferring the pollutants to the fly ash and other air pollution control residues. Previous EPA studies of whether increased pollutant content would increase the risks correspondingly were inconclusive. For example, EPA evaluated the environmental fate of metals that are captured in CCR through use of enhanced air pollution controls, by characterizing the leaching behavior of 73 air pollution control residues, using the Leaching Environmental Assessment Framework (LEAF) methodology. Materials were tested over the pH conditions and liquid/solid ratios expected during management via land disposal or beneficial use. Leachate concentrations for most metals were highly variable over a range of coal type, facility configurations, and air pollution control residues. In addition, the data showed significantly different leaching behavior for similar residue types and facility configurations. Overall, the variability in leaching of the metals in the CCR was greater than the variability

in totals concentrations by several orders of magnitude, suggesting that total pollutant content may not be predictive of leaching behavior, and consequently the risks.²⁴

The Agency received no data from commenters that would aid in resolving this uncertainty. To try to establish some parameters around the uncertainty, EPA attempted to develop estimates of the extent to which this issue could meaningfully affect the risks.

As an initial step, EPA focused on mercury pollution controls, as mercury levels in these wastes was an issue of particular concern in the public comments. It has been established that mercury pollution controls can affect both the mercury content and the general leaching behavior of ash (US EPA 2006, 2008, 2009). Using the limited data available, EPA attempted to evaluate the extent to which mercury controlled wastes could ultimately affect the overall risk associated with disposal of CCR.

EPA conducted a sensitivity analysis that filtered the full 2014 risk assessment results for the subset of fly ash samples generated by facilities that have currently installed ACI systems. The samples were collected from five different facilities that were either installing or evaluating an ACI system for increasing mercury capture. At each facility, samples were collected both before and after the installation of an ACI system. Ultimately the results were inconclusive, likely because of the small sample size, and EPA can draw no conclusions about the exact effects of ACI systems on the risks from CCR disposal. Nevertheless, the analysis provided some useful information. Capturing and transferring pollutants from air emission to the fly ash and other air pollution control residues would normally be expected to increase the risks associated with disposal of these wastes. EPA's analyses, however, showed only a marginal difference in risks for ash generated with or without the use of an ACI system, and in some instances the risks decreased slightly with the addition of activated carbon. The significance of these results should not be overstated—the observed decreases were not consistent and were thought to be an artifact of the relatively small number of model iterations. It is also important to remember that these results provide no information about the potential effects from the installation of

²⁴ Thorneeloe, S., Kosson, D., Sanchez, F., Garrabrants, A.C., and Helms, G., Evaluating the Fate of Metals in Air Pollution Control Residues from Coal-Fired Power Plants, Environ. Sci. Technol. 2010, 44, 7351–7356.

FGD systems for SO₂ control, or SCR systems for NO_x control, any of which could also significantly affect the characteristics of the wastes. But these results also suggest that EPA should be cautious about assuming that the risks will necessarily increase as a result of the imposition of additional air pollution controls.

Other uncertainties in the risk assessment developed for the proposal related to the extent to which some sampled data with high concentrations of constituents used in the risk assessment accurately reflect coal ash leaching from landfills or surface impoundments. For example, as explained in the proposed rule, some data reflected pore water taken in the upper section of a surface impoundment where coal refuse was placed. There were acid generating conditions and high concentrations of arsenic, but the data demonstrated that the underlying coal ash neutralized the acid conditions and greatly reduced the arsenic which leached from the bottom of the impoundment. EPA also noted that much of the pore water samples and leachate data were several years old, and questions had been raised whether these data accurately reflected current management practices. Finally, EPA noted that recent research indicated that traditional leach procedures (*e.g.*, Toxicity Characteristic Leaching Procedure (TCLP) and Synthetic Precipitation Leaching Procedure (SPLP)) may underestimate the actual leach rates of toxic constituents from CCR under different field conditions.

First, regarding the question of appropriate pH conditions in CCR units, and the resulting leachate concentrations in impoundments where coal refuse was placed, EPA obtained data during the development of this rule directly relevant to this issue. A survey conducted by the Electric Power Research Institute (EPRI) in 1995 had shown that 34 percent of unlined landfills and 68 percent of unlined surface impoundments actively managed CCR with coal refuse. However, more recent data collected by EPA as part of the Clean Water Act ELG rulemaking in 2009–2010 indicates that this management practice has declined significantly to approximately five percent of current units.

EPA also obtained sufficient data to resolve concerns about the accuracy of the concentrations in pore water and leachate used in the risk assessment.

EPA received a substantial amount of data on CCR chemical constituents from commenters, which included total concentrations, pore water, and leaching test results for various types of CCR, *i.e.*,

bottom ash, FGD gypsum, FGD sludge, fly ash cenospheres, boiler slag, and combined waste streams. This included data from several EPRI reports, which provided field leachate results for bottom ash, fly ash, and FGD solids from a number of landfills and surface impoundments. EPA also received leachate data from the Alaska Department of Environmental Conservation, the Michigan Department of Natural Resources and Environment (MI DNRE), and from the Maryland Department of the Environment on total metals, TCLP, and SPLP results for bottom ash and fly ash. Included among these data were TCLP results for 102 CCR samples and 12 FGD gypsum samples, and two landfill leachate samples, as well as several laboratory reports on CCR leachate from 2008 through 2010. EPA also received several reports from the University of North Dakota Energy & Environmental Research Center, with leaching test results for 58 fly ash, five FGD, and four FGD gypsum samples using various leaching methods other than TCLP, and TCLP mercury results for 15 fly ash samples, as well as leaching test results for five fly ash and two bottom ash samples using 18-hr, 30-day, and 60-day leach methods, plus bulk and trace element data for five fly ash samples, two bottom ash samples, and one slag sample. (See 76 FR 63252, October 12, 2011.)

In addition to the data submitted by commenters, EPA's Office of Research and Development (ORD), in collaboration with Vanderbilt University (VU), developed additional CCR leaching data using a revised methodology, the Leaching Environmental Assessment Framework, or LEAF, consisting of four methods that evaluate leaching potential for various waste forms at different plausible pH values and liquid-solid ratios, in order to more accurately simulate leaching potential over a variety of field conditions. The LEAF methods went through validation working with 20 different laboratories, different waste matrices, and documented in two EPA reports finding good agreement between the labs for the four methods.²⁵ In

²⁵ Garrabrants A.C., D.S. Kosson, H.A. van der Sloot, F. Sanchez and O. Hjelmar (2010) Background information for the Leaching Environmental Assessment Framework (LEAF) Test Methods, EPA-600/R-10/170, U.S. Environmental Protection Agency, Air Pollution Prevention and Control Division, December 2010.

Garrabrants A.C., D.S. Kosson, L. Stefanski, R. DeLapp, P.F.A.B. Seignette, H.A. van der Sloot, P. Kariher and M. Baldwin (2012a) Interlaboratory Validation of the Leaching Environmental Assessment Framework (LEAF) Method 1313 and Method 1316, EPA/600/R-12/623, U.S.

addition, EPA compiled decades of data for ten different case studies to compare field and laboratory leach data.²⁶ These data also showed LEAF methods to be a good predictor of field leachate behavior using geochemical speciation modeling for factors such as oxidation that are difficult to account for in the lab. When considered along with the methods validation, the field-to-lab leachate data comparison provides additional confidence that LEAF methods can more accurately predict environmental release over a range of materials, waste form, pH, liquid-solid ratio, and other parameters influencing leaching behavior such as calcium depletion for a material.

In updating the risk assessment for the final rule, EPA relied on surface impoundment pore water data and impoundment wastewater data, including the data submitted by commenters. For landfills, EPA only used LEAF data to characterize the leachate for the range of materials resulting from various air pollution control technologies. The CCR data documented in three EPA reports²⁷ and summarized in Thorneloe et al, 2010²⁸

Environmental Protection Agency, Air Pollution Prevention and Control Division, September 2012.

Garrabrants A.C., D.S. Kosson, R. DeLapp, P. Kariher, P.F.A.B. Seignette, H.A. van der Sloot, L. Stefanski and M. Baldwin (2012b) Interlaboratory Validation of the Leaching Environmental Assessment Framework (LEAF) Method 1314 and Method 1315, EPA-600/R-12/624, U.S. Environmental Protection Agency, Air Pollution Prevention and Control Division, September 2012.

²⁶ Kosson D.S., van der Sloot, H.A., Seignette, P.F.A.B. 2014. Leaching Test Relationships, Laboratory-to-Field Comparisons and Recommendations for Leaching Evaluation using the Leaching Environmental Assessment Framework (LEAF), EPA-600/R-14/061. EPA Office of Research and Development, National Risk Management Research Laboratory, Research Triangle Park, NC, 27711, December.

²⁷ Sanchez F., R. Keeney, D.S. Kosson and R. DeLapp (2006) Characterization of Mercury-Enriched Coal Combustion Residues from Electric Utilities using Enhanced Sorbents for Mercury Control, EPA-600/R-06/008, U.S. Environmental Protection Agency, Air Pollution Prevention and Control Division, February 2006.

Sanchez F., D.S. Kosson, R. Keeney, R. DeLapp, L. Turner and P. Kariher (2008) Characterization of Coal Combustion Residues from Electric Utilities using Wet Scrubbers for Multi-pollutant Control, EPA-600/R-08/077, U.S. Environmental Protection Agency, Air Pollution Prevention and Control Division, July 2008.

Kosson D.S., F. Sanchez, P. Kariher, L.H. Turner, R. DeLapp, and P. Seignette (2009) Characterization of Coal Combustion Residues from Electric Utilities—Leaching and Characterization Data, EPA-600/R-09/151, U.S. Environmental Protection Agency, Air Pollution Prevention and Control Division, December 2009.

²⁸ Thorneloe S.A., D.S. Kosson, F. Sanchez, A.C. Garrabrants and G. Helms (2010) "Evaluating the fate of metals in air pollution control residues from coal-fired power plants." *Environmental Science and Technology*, 44, 7351–7356.

provides a robust characterization of air pollution control residues from coal-fired power plants and indicates that leaching rates can vary by several orders of magnitude, depending on pH levels and the amount of liquid that comes into contact with the CCR solids (*i.e.*, the liquid to solid ratio).

The 2014 risk assessment incorporates these new data, and accounts for both the pH of the waste in field conditions, as well as the liquid-to-solid ratio of the leachate and CCR, which effectively addresses the concerns raised in the proposed rule that TCLP and SPLP methods could underestimate leachate concentrations.

A further area of uncertainty related to one of the primary inputs into the risk assessment. As noted in the proposed rule, the Agency's risk estimates were based on the existing cancer slope factor of 1.5 mg/kg/d^{-1} for arsenic in EPA's Integrated Risk Information System (IRIS). However, EPA noted that was in the process of reevaluating the arsenic cancer slope factor in light of recent recommendations from the National Research Council (NRC) of the National Academy of Sciences (NAS) in "Critical Aspects Arsenic in Drinking Water, 2001 Update." In the proposal, EPA estimated that using this NRC data analysis would increase the individual risk estimates by approximately 17 times.

EPA is currently evaluating the arsenic cancer slope factor in light of more recent NRC recommendations, regarding the approach and the science for estimating cancer and non-cancer risk in "Critical Aspects of EPA's IRIS Assessment of Inorganic Arsenic, (NRC 2013)." EPA is in the process of implementing these recommendations, but to date has been unable to finalize its IRIS reassessment. Nor did EPA receive any other information during the development of this final rule that would help to resolve this uncertainty.

A final source of uncertainty in the risk assessment developed for the proposed rule related to the potential impact from the interception of contaminated groundwater plumes by surface water bodies that exist between a waste management unit and a down-gradient drinking water well. It is common for coal-fired utilities to be located near water bodies, which are used as a source of cooling water and waste conveyancing. Releases from surface impoundments located in close proximity to water bodies can be intercepted, which can significantly affect the contaminants that reach drinking water wells. For example, surface impoundments are commonly

placed next to rivers, which can intercept the leachate plume and prevent contamination of drinking water wells on the other side of the river. Also, in such circumstances the direction of groundwater flow on both sides of the river may be towards the river; thus, the drinking water well on the opposite side of a river may not be impacted.

Over the course of the rulemaking, EPA was able to obtain sufficient data to model the impact from interception of contamination by surface water bodies. The risk assessment developed for the final rule accounts for the interception of the groundwater contamination plume by surface water bodies, and the resulting decrease in constituent mass to downstream drinking water sources. As a consequence of this modeling, the median risks for surface impoundments and landfills were substantially lower than both the high-end and median risks modeled in the 2010 risk assessment, *i.e.*, by approximately an order of magnitude.

2. Adequacy of Existing State Regulatory Oversight

The assessment of state regulatory programs in the proposed rule was based largely on two reports: A joint U.S. Department of Energy (DOE) and EPA study completed in 2006, "Coal Combustion Waste Management at Landfills and Surface Impoundments, 1994–2004," and a 2009 survey conducted by the Association of State and Territorial Solid Waste Management Officials (ASTSWMO). EPA's preliminary conclusion was that while states seem to be regulating landfills to a greater extent than in 2000, significant gaps in state programs appeared to remain, particularly with respect to the oversight of surface impoundments.

In reaching this conclusion EPA noted the following findings from the DOE/EPA study: only 19 percent (three out of 19) of the surveyed surface impoundment permits included requirements addressing groundwater protection standards (*i.e.*, contaminant concentrations that cannot be exceeded) or closure/post-closure care, and only 12 percent (two out of 12) of surveyed units were required to obtain bonding or financial assurance. The EPA/DOE report also concluded that approximately 30 percent of the net disposable CCR generated was potentially exempt from all state solid waste permitting requirements (EPA/DOE Report at pp 45–46). For example, at the time of the report, Alabama did not regulate CCR disposal under any state waste authority and nor had a dam

safety program. Texas (the largest coal ash producer) did not require permits for waste managed on-site, which is defined as waste managed at any site owned by the generator, up to 50 miles away from the generating facility. Finally, the report found that a number of states only regulated surface impoundments under CWA authorities, and consequently primarily addressed the risks from effluent discharges to navigable waters, but did not require liners or groundwater monitoring.

The more recent 2009 ASTSWMO survey reached similar conclusions. With respect to liner requirements, 36 percent of surveyed states did not have minimum liner requirements for CCR landfills, while 67 percent did not have CCR liner requirements for surface impoundments. Similarly, 19 percent of states surveyed did not have minimum groundwater monitoring requirements for landfills and 61 percent did not have groundwater monitoring requirements for surface impoundments. The 2009 ASTSWMO survey also indicated that only 36 percent of states regulated the structural stability of surface impoundments.

In the proposal, EPA identified several issues that complicated its preliminary assessment and prevented the Agency from reaching overall conclusions as to the adequacy of state regulatory programs. First, EPA raised concern about the absence of any real details in the two reports regarding how states, in practice, oversee the disposal or other solid waste management of CCR. For example, even though the disposal units might not be regulated under the state solid waste provisions, some states may use performance based standards or implement requirements to control CCR landfills and surface impoundments under other state programs. Second, EPA noted that most of the more recent data primarily focused on the requirements applicable to new management units, which only represented approximately 10 percent of currently operating units. EPA had little, if any, information that described the extent to which states and utilities had implemented requirements, such as groundwater monitoring, on the many existing landfills and surface impoundments that receive CCR. Moreover, the information in the record for the proposal with respect to these older units was fifteen years old. EPA assumed it to be unlikely that states would have required existing units to install liners, but suggested states may have been more likely to have imposed groundwater monitoring for such units over the last 15 years.

EPA also identified several issues that would be relevant to the Agency's evaluation of the overall adequacy of state regulatory programs. Specifically, EPA explained that it would consider how state regulatory programs have, in practice, evaluated and imposed requirements to address: (1) Leachate collection; (2) groundwater monitoring; (3) whether a unit must be lined and the type of liner needed; (4) the effectiveness of existing management units as opposed to new management units; (5) whether the state requires routine analysis of CCR; (6) whether financial responsibility requirements are in place for the management of CCR; (7) the extent of permit requirements, including under what authorities these disposal units are permitted, the types of controls that are included in permits, and the extent of oversight provided by the states, (8) whether state programs include criteria for siting new units; (9) the extent of requirements for corrective action, post-closure monitoring and maintenance; (10) the state's pattern of active enforcement and public involvement; and (11) whether or not these facilities have insurance against catastrophic failures.

EPA received a substantial amount of information on state programs from commenters. Extensive comments were submitted by a coalition of environmental groups, outlining the alleged gaps in state regulatory programs applicable to the management of CCR. These comments contained a comprehensive analysis of 37 state programs based on the findings of the DOE/EPA 2006 report as well as on an independent compilation of state program requirements. According to these commenters' analysis, only four states (representing approximately four percent of the CCR generated in the U.S. in 2005) required groundwater monitoring in all new and existing landfills, and only six states (representing approximately 19 percent of the CCR generated in 2005) required groundwater monitoring in all new and existing surface impoundments; only five states (representing approximately seven percent of the CCR generated in 2005) required composite liners for all new landfills; and only four states (representing approximately 19 percent of the CCR generated) required composite liners for all new surface impoundments. The commenters' analysis discounted any state law that included any provision that granted permit writers discretion to modify the requirement on a case-by-case basis, and/or to grant waivers and exemptions

based on the waste's toxicity, onsite location, and management practice.

EPA also received comments from ASTSWMO, the Environmental Council of the States (ECOS), and 36 individual states. In its comments, ASTSWMO submitted a report with revisions of the aggregated statistics in its 2009 report, which they claim demonstrated that state CCR programs were more robust than described in the proposed rule. These commenters generally agreed with EPA's conclusion that state requirements for key CCR requirements are typically more robust for landfills than for surface impoundments. ASTSWMO's comments included the following examples: 71 percent of the surveyed states required a liner for landfills, compared to 65 percent that required that surface impoundments be lined; 87 percent of surveyed states required groundwater monitoring at landfills, compared to 67 percent of states that required groundwater monitoring at surface impoundments; and while 83 percent of surveyed states required structural stability monitoring at landfills, only 64 percent of surveyed states required it at surface impoundments. The sole exception related to permit requirements, where the report claimed that 91 percent of the surveyed states required a permit of some type for surface impoundments, as compared to 86 percent of states that required a permit for landfills. In addition, ASTSWMO claimed that all 42 surveyed states had the authority to require remediation. The report also alleged that in 43 of 44 states, states had the authority to require surface impoundments to implement repair and maintenance efforts during operation. ASTSWMO also claimed that 43 out of 44 states required that steps be taken to protect human health and the environment, and that 41 of 43 states also had authority to require closure.

According to this revised survey, state requirements also vary with respect to whether they applied to all waste units, or only to new units or lateral expansions. ASTSWMO stated that in 34 percent of the surveyed states, liner requirements applied equally to new and existing landfills, and to both existing and new surface impoundments in 46 percent of the surveyed states. Similarly, ASTSWMO stated that groundwater monitoring was required for both existing and new landfills in 82 percent of the surveyed states, and to both existing and new surface impoundments in 74 percent of the surveyed states.

Nineteen states and state organizations also directly responded to the environmental groups' report by

submitting comments on their programs, although only four of these states were among the leading CCR generators: Kentucky, North Dakota, Ohio, and Michigan. These states identified specific instances where the assertions made by the environmental groups were factually incorrect or omitted relevant information. In response to both the proposed rule and the NODA (76 FR 63252, October 12, 2011) most states provided only summaries of their regulatory programs rather than detailed descriptions.

As EPA explained in the proposed rule, there are significant limitations to the kind of aggregated survey statistics presented in ASTSWMO's comments. Such statistics fail to provide the information necessary to meaningfully address the question of how, in practice, state programs regulate the relevant risks presented by the management or disposal of CCR, which was the issue that EPA explained was necessary to resolve. For example, even assuming that 91 percent of the surveyed states actually do require a permit of some type for surface impoundments, this provides no information on the nature or extent of the specific requirements in the permit. As noted in the proposal, most CCR surface impoundments are regulated under a NPDES permit, and while the risks from effluent discharges to navigable waters are addressed, these units are not subject to the provisions designed to protect groundwater, such as liners or groundwater monitoring. Nor does it address the extent of the requirement; for example, although Texas generally requires landfills to be permitted and to monitor groundwater, the majority of CCR units are exempt from these requirements because all industrial wastes managed on-site (*i.e.*, any site owned by the generator, up to 50-miles away from the generator's facility) are exempt. Finally, since the ASTSWMO survey does not identify the individual surveyed states but merely presents aggregated statistics, this information cannot be correlated with the amount of CCR generated, which significantly limits its value; for example, information demonstrating the strength of the regulatory program in a state responsible for two percent of the net CCR generated nationally is less significant than similar information on a state responsible for 25 percent of the net CCR generated.

In addition to the information provided by commenters, EPA independently reviewed state statutes and regulations, with a more detailed focus on the 16 states responsible for approximately 74 percent of the CCR generated in 2009. It is clear from this

review, as well as from information submitted by the commenters, that the degree of state regulatory oversight of these wastes and the overall protectiveness of the particular state programs varies widely.

Overall, the information from commenters and from EPA's own review of state programs generally confirms EPA's original conclusion that significant gaps remain in many state programs. Some programs provide minimal or no regulatory oversight of CCR units. For example, Arizona, New Mexico, and Utah have no regulations applicable to CCR units or entirely exempt CCR from state regulations governing solid waste. Similarly, Mississippi, Montana, and Texas (the largest coal-ash producer) exempt the on-site disposal of CCR (as "non-hazardous industrial solid waste") from some or all key requirements, such as permits or groundwater monitoring.²⁹ Such exemptions would cover most of the disposal of CCR within the state, as the majority of utilities dispose of their CCR on-site. Other states, such as Florida, Indiana, Ohio and Pennsylvania, exempt CCR landfills or "monofills" from many requirements. For example, Indiana regulations consider surface impoundments that are dredged at least annually to be "storage units" that are exempt from solid waste regulations, including from corrective action requirements. Many of these states are among the leading generators of CCR wastes. In total, EPA estimates that approximately 20 percent of the net disposable CCR is entirely exempt from state regulatory oversight.

State programs that entirely exempt CCR management from regulatory oversight, however, are the exception. Most states do regulate the management of CCR to varying degrees, although the particular requirements can vary significantly. Still, some general conclusions can be drawn.

Most CCR surface impoundments are permitted exclusively under NPDES or other surface water pollution prevention programs. In these states, requirements to protect groundwater, such as liners or groundwater monitoring systems, are frequently less robust than the corresponding requirements applicable to CCR landfills.

Many state programs require that new disposal units be lined and groundwater monitoring systems installed, although many exempt existing waste units from the liner and groundwater monitoring requirements. Consequently, for newer units, the facts are less alarming: 89 percent of the 114 CCR surface

impoundments constructed between 1994 and 2010 have liners, and 70 percent have composite liners. Similarly, 37 of 45 CCR surface impoundments EPA surveyed had installed groundwater monitoring systems. By contrast, 79 percent of the landfills constructed during this timeframe had installed liners, but only 58 percent were composite-lined. However the majority of the older (pre-1994) waste units still lack liners; 63 percent of older landfills have no liners and 63 percent and 24 percent of older surface impoundments have either no liners or clay liners, respectively.

Information on the extent of groundwater monitoring at older units was either unavailable, or was too unreliable to support any conclusions as to the overall number or percentage of older units with groundwater monitoring systems in most states. ASTSWMO's comments in response to the October 2011 NODA identified eight states³⁰ that required groundwater monitoring at existing facilities, but only a few of these states addressed this issue in their comments. EPA has some anecdotal evidence on the status of groundwater monitoring in six states, including four states that are among the leading CCR generators. In the wake of the Kingston TVA spill, groundwater monitoring wells were installed at 12 of Illinois's existing surface impoundments, almost doubling the number of monitored surface impoundments in the state. However, 55 additional surface impoundments, both active and inactive, still lack groundwater monitoring systems. In Ohio, 44 CCR units, out of a total of 57 CCR units in the state (42 surface impoundments and 15 landfills) still lack groundwater monitoring, even though all of the surface impoundments were permitted decades ago under Ohio's NPDES program. Ohio acknowledged in their comments that the extent of groundwater risks in the state is poorly documented, as 40 out of 44 unlined CCR units do not have a groundwater monitoring system. In sum, the available information is limited, but at least some of that information indicates that significant gaps remain with respect to the implementation of groundwater monitoring requirements under some state regulatory programs.

Of the states that require groundwater monitoring, most appear to require monitoring wells to be placed around the waste unit boundary, although the distance from the unit boundary varies from 50 feet to 150 meters. However,

some state programs also authorize a buffer zone or a "zone of discharge," which allows the facility to defer remediation of groundwater contamination for some period of time, usually until the contaminant plume has migrated to the facility site boundary. Florida, Illinois, North Dakota, and Tennessee are among that states with such a regulatory provision. For example, under Florida regulations, primary and secondary maximum contaminant levels (MCLs) do not apply even beyond the "zone of discharge," absent a specific order by state regulatory authorities.

Most state programs allow the state regulatory authority to grant variances or exemptions for some or all of the requirements based on site-specific factors. For example, all of the following states require groundwater monitoring at CCR surface impoundments, but also authorize the regulatory authority to exempt or waive those requirements: Alabama, Florida, Georgia, Illinois, Indiana, Kentucky, North Carolina, North Dakota, Pennsylvania, and West Virginia. Contrary to the analysis presented by the environmental groups' comments, the mere fact that state law grants a permit authority the discretion to tailor requirements to account for a facility's site specific conditions does not support a conclusion that the regulatory program is necessarily inadequate. In fact, EPA noted in the proposal that one of the strengths of the subtitle C program was that, as a result of the permit process, requirements could be tailored to account for site specific conditions. Nor does the existence of a waiver process provide any evidence of actual practices; in their comments, a few states acknowledged that state law allowed for variances, but asserted that none had been requested.

To complicate matters further, several states explained that while state law does not mandate certain requirements, state regulatory authorities have, in practice, begun to require them in more recent permits. For example, several states, including Ohio, Texas, Michigan, Florida, and Kentucky, noted that recent practice was to require older disposal units to retrofit or close where they failed to meet relevant standards. Similarly, it appears that in the 16 leading CCR-generating states, 94 percent of new landfills have installed liners (either composite or clay), although only 19 percent of these state programs actually mandate CCR landfills to install a liner. And although only six percent of these state programs require installation of a liner in a new surface impoundment, 75 percent of

²⁹ See 30 TX ADC 335.2(d);

³⁰ Georgia, Illinois, Indiana, Iowa, Montana, Ohio, Pennsylvania, and South Carolina.

new CCR surface impoundments in these states are lined.

All of this information suggests that, at least in some cases, the concerns raised in the proposal regarding the protectiveness of state programs remain warranted. But it also is clear it would be impossible to accurately evaluate whether, in practice, state programs are protective without reviewing individual permit decisions and permit requirements. Such an evaluation would necessarily involve not only a review of the specific permit requirements, but also the site conditions and other factual bases supporting the decision to impose the particular requirements.

Unfortunately, this information was not provided by commenters or found in any source currently available to the Agency.

3. Documented Cases in Which Danger to Human Health or the Environment From Surface Run-off or Leachate Has Been Proved

In the proposed rule, EPA described the information it had compiled on specific cases where CCR mismanagement had caused harm to human health or the environment since the 2000 Regulatory Determination. Specifically, EPA explained that it had identified 27 proven damage cases: 17 cases of damage to groundwater, and ten cases of damage to surface water, seven of which are ecological damage cases. Sixteen of the 17 proven damage cases to groundwater involved disposal in unlined units; for the one additional unit, it is unknown whether the unit was lined. EPA also identified 40 potential damage cases to groundwater and surface water. The Agency noted that these numbers likely underestimated the number of damage cases and its expectation that additional cases of damage would be found if a more comprehensive evaluation was conducted, particularly since much of this waste has been (and continues to be) managed in unlined disposal units. EPA also noted its concern that several of the new damage cases involved activities that differ from prior damage cases, including the catastrophic release of waste due to the structural failure of CCR surface impoundments, such as the dam failures that occurred in Martins Creek, Pennsylvania and Kingston, Tennessee, as well as the large-scale placement, akin to disposal, of CCR, under the guise of "beneficial use."

EPA noted as well that it had received new reports from industry and environmental and citizen groups regarding damage cases. Industry provided information to demonstrate that many of EPA's listed proven

damage cases did not meet EPA's criteria for a damage case to be considered "a proven damage case," that had been developed for purposes of the Beville Regulatory Determinations. Environmental and citizen groups, on the other hand, had submitted reports alleging the existence of more recent damage cases beyond those EPA had previously documented.

EPA raised questions concerning the following areas associated with the damage cases; first, whether the damage cases discovered to date accurately reflected the true number of damage cases associated with the mismanagement of CCR. Second, EPA highlighted concern regarding the accuracy of the available information on damage cases, as in certain instances, much of the information was largely anecdotal. EPA therefore specifically solicited comments from state regulatory authorities and the facilities involved with the incidents, in the hope of obtaining direct evidence of the facts in each case and to obtain a better understanding of the nature of the damage caused by past and current management practices. For the same reason, on October 12, 2011, EPA published a NODA, soliciting comment on the extensive reports received during the original comment period on the proposed rule. (See 76 FR 63252.)

As discussed in more detail in Unit XI of this document, EPA received a significant number of comments on this topic, both during the original comment period on the proposal, and in response to the NODA. EPA received information on additional damage cases from a number of citizen groups, including the report from Environmental Integrity Project and Earthjustice titled, "Out of Control: Mounting Damages From Coal Ash Waste Sites," which presented information on 31 alleged CCR damage cases that were not included or were not recognized as damage cases in EPA's July 2007 report. EPA also received an August 26, 2010 report by the Environmental Integrity Project, Earthjustice, and the Sierra Club titled "In Harm's Way: Lack of Federal Coal Ash Regulations Endangers Americans and Their Environment," which presented an additional 39 alleged CCR damage cases.³¹ EPA also received information on ten additional damage cases from state officials in Michigan and Wisconsin.

³¹ EPA also received several additional reports that contained allegations of further damage cases. However, because these were submitted after the close of the comment period, EPA did not evaluate these damage cases for this rulemaking or otherwise consider the information in those reports.

EPRI submitted two draft reports titled "Evaluation of Coal Combustion Product Damage Cases: Volume 1: Data Summary and Conclusions" (finalized in July 2010), and "Evaluation of Coal Combustion Product Damage Cases: Volume 2: Case Summaries" (finalized in September 2010). In these reports, EPRI provided information that, they claimed, showed that many of EPA's previously identified "proven" damage cases did not meet EPA's criteria for a damage case to be considered "proven." In response to the 2010 NODA, USWAG submitted a report that reviewed the 70 additional damage cases submitted by citizen groups as part of their comments on the proposed rule. These reports focused primarily on the degree to which the contamination had been contained "on-site" or had migrated off-site of the facility.

In Unit XI of this document, EPA discusses at length all of the comments received and its subsequent analysis of the information obtained throughout the rulemaking. In sum, after analyzing all of the information submitted in response to this rulemaking, EPA has confirmed a total of 157 cases, both proven and potential, in which CCR mismanagement has caused damage to human health and the environment. Although EPA expects that additional damage cases will be discovered in response to the installation of the groundwater monitoring systems required by the final rule, overall EPA has a significantly better understanding of the extent and nature of the damage caused by CCR mismanagement than when the proposed rule was issued. EPA has sufficient confidence in the veracity of the information collected to rely on it in making decisions in this rule.

4. Conclusions

EPA explained in the proposed rule that the decision on whether to retain the Beville exemption is inherently discretionary, in that it ultimately requires the Agency to make a policy judgment as to the appropriate balance among the eight statutory factors. Chief among the several principles that EPA stated would guide its decision was that any action must protect human health and the environment. To this end, EPA singled out three key areas of analyses that bear directly on that guiding principle: the extent of the risks posed by mismanagement of CCR; the adequacy of state programs to ensure proper management of CCR; and the extent and nature of damage cases.

The first of these largely related to the 2010 quantitative risk assessment of the potential for contamination to

groundwater. During the rulemaking, EPA received information that allowed the Agency to resolve two of the four primary uncertainties identified in the proposal. The risk assessment has been revised with updated pore water concentration data and with LEAF leachate data, and accounts for the potential reduction of contaminants reaching drinking water sources due to interception of contamination by surface water bodies. However, two sources of uncertainty remain: the potential effect of pollution control technologies on the CCR characteristics, and the appropriate IRIS value for arsenic.

EPA's risk assessment evaluated current management practices, and generally did not attempt to account for or evaluate the potential for future changes in the wastes. While EPA has great confidence in the assessment, its ability to definitively resolve this question is therefore limited, given the very real potential for significant changes in CCR characteristics and constituents in the near future, due to the required installation of pollution control technologies. Changes in the CCR characteristics are particularly significant, as the risk assessment concluded that one of the parameters most likely to affect the agency's risk estimates was the characteristic of the wastes.

With respect to the second area, EPA is unable to reach any definitive conclusions as to whether state regulatory programs are so deficient that the level of federal oversight under subtitle C is necessary. Specifically, EPA cannot determine from the available information how states, in practice, have implemented regulatory requirements. At this point, only limited conclusions are possible.

Clear deficiencies exist in some state regulatory programs, and questions remain with respect to others. And many of these concerns exist with respect to programs in states responsible for the majority of CCR generation and disposal. However, most state programs, although they vary considerably, are not clearly deficient on their face. But it is equally clear that exclusive reliance on the regulatory programs as written, without any examination of how states have implemented those requirements in practice, would not support sweeping conclusions about the overall adequacy of state programs. It is critical to ensure that any decision accurately accounts for how the states have exercised their judgment in implementing those requirements, before concluding that state programs cannot adequately oversee the management of CCR without the degree of federal involvement

mandated by subtitle C. Notwithstanding EPA's inability to draw conclusions on the overall adequacy of state programs, the high degree of variation across state programs strongly supports the need for federal requirements to establish a consistent national standard of groundwater and human health protection.

In contrast to the other two areas identified in the proposed rule, while some uncertainty remains with respect to the damage cases—namely, whether the 157 identified to date represent the total number of damage cases caused by CCR mismanagement, and whether some of the “potential” damage cases should be classified as “proven” damage cases—at this point, EPA has concluded that the available information provides a sufficient evidentiary base on which decisions can be made. In the absence of the necessary information on two of the three critical areas, however, EPA cannot reach any final conclusions regarding the appropriate balance among the eight statutory factors. Consequently, EPA is also not reaching any final conclusions as to whether a damage case is best categorized as “proven” or “potential.” Such a finding is relevant only to the Beville Regulatory Determination.

However, as discussed in more detail in Unit XI of this document, the damage cases provide extremely valuable evidence that is directly relevant to the question of whether and how to regulate CCR waste. For example, the damage cases provide “real world” evidence against which to compare EPA's risk modeling estimates, such as evidence regarding the frequency with which particular constituents leach into groundwater. They also provide direct evidence regarding specific waste management practices at electric utilities, along with the potential consequences of those practices. Finally, both the specifics of the damage cases and the fact that they continue to occur provide strong evidence of the need for this rule under subtitle D while EPA obtains the information that will allow the Agency to make a final Regulatory Determination for these wastes.

Thus, even though EPA is not able to reach a final conclusion on the Regulatory Determination for these wastes, the totality of the information in the rulemaking record clearly demonstrates that the risks associated with the current management and disposal of CCR remain substantial. EPA's risk assessment concluded that the cancer risks from unlined surface impoundments ranged from 3×10^{-4} for trivalent arsenic to 4×10^{-5} for

pentavalent arsenic. Non-cancer risks from these same units also significantly exceeded EPA's level of concern, with estimates ranging from an HQ of 2 for thallium, to HQs³² of 4 for molybdenum and 8 for trivalent arsenic. The risks associated with unlined landfills were also estimated to be significant, with cancer risks of 2×10^{-5} for trivalent arsenic. It is important to note that these risk numbers are based on national disposal practices. Risks at an individual site may be even higher based on individual site conditions, waste characteristics, and management practices. EPA's risk assessment identified the potential for higher risks based on different waste pH values and management practices. Multiple constituents presented higher risks when considered in waste management units that co-dispose both ash and coal refuse at more acidic pHs or FGD wastes at more basic pHs. For example, the modeled cancer risks for the co-disposal of ash and coal refuse (pH 1.7–8.2) ranged between 10^{-3} for trivalent arsenic to 4×10^{-4} for pentavalent arsenic. Non-cancer risks were similarly high, ranging between and an HQ of 13 for cobalt, and HQs of 14 for pentavalent arsenic to 26 for trivalent arsenic, based on the ingestion of contaminated drinking water. Although this management practice is declining, recent information indicates that approximately five percent of facilities continue to co-dispose of ash and coal refuse in surface impoundments.

Moreover, EPA's risk estimates are consistent with the continued damage cases compiled through this rulemaking. As further discussed in Unit XI of this document, EPA has confirmed that 157 cases of proven or potential contamination of groundwater have occurred in states across the nation since the initial Regulatory Determination. These damage cases were primarily associated with unlined units and were most frequently associated with releases of arsenic. While new units are typically constructed with composite liners, which under EPA's current risk assessment adequately mitigate the risks, older units still comprise the overwhelming majority of currently operating units. EPA's data show that approximately 63 percent of currently operating surface impoundments and landfills are unlined, and thus more prone to leach contaminants into groundwater. Analysis of the information from the damage cases also demonstrates that unlined surface

³² For more information on HQs please see Unit X. Risk Assessment of this preamble.

impoundments typically operate for 20 years before they begin to leak. Most of the currently operating surface impoundments are between 20 and 40 years old.

The age of the units also has implications for their structural stability and the potential for catastrophic releases. Of the approximately 735 CCR surface impoundments currently operating in the United States, a certain percentage have a great potential for loss of human life and environmental damage in the event of catastrophic failure. Based on the information collected from EPA's Assessment Program, 318 surface impoundments have either a high or significant hazard potential rating, at least 13 of which were not designed by a professional engineer. Of the total universe of surface impoundments, approximately 186 of these units were not designed by a professional engineer. Surface impoundments are generally designed to last the typical operating life of coal-fired boilers, on the order of 40 years. However, many impoundments are aging; based on the subset of units for which age data were available, approximately 195 active surface impoundments exceed 40 years of age; 56 units are older than 50 years, and 340 are between 26 and 40 years old. In recent years, problems have continued to arise from these units, which appear to be related to the aging infrastructure, and the fact that many units may be nearing the end of their useful lives. For example, as a result of the administrative consent order issued after the December 2008 spill, TVA conducted testing which showed that another dike at TVA's Kingston, Tennessee plant had significant safety deficiencies. Collectively, these facts indicate a high likelihood that in the absence of any regulatory action, such units will leak in the near future, or are currently leaking, undetected, since groundwater monitoring is not installed at many of these older units. Moreover, damage cases continue to occur; in response to EPA's CERCLA 104(e) information request letter, a total of 35 units at 25 facilities reported historical releases. These range from minor spills to a spill of 0.5 million cubic yards of water and fly ash. And as recently as February 2014, CCR slurry was released into the Dan River from an inactive surface impoundment in North Carolina.

All of which demonstrates a compelling need for a uniform system of requirements to address these risks without waiting for the information and analyses necessary to complete a final Regulatory Determination. EPA will

continue to monitor these critical areas, and will provide the public with an additional opportunity to comment on any proposed Regulatory Determination, prior to issuing a final Regulatory Determination.

B. Final Regulatory Determination Regarding Beneficial Use

EPA generally proposed to retain the May 2000 Regulatory Determination that beneficially used CCR did not warrant federal regulation under subtitle C of RCRA. As EPA stated in the May 2000 Regulatory Determination, "In the [Report to Congress], we were not able to identify damage cases associated with these types of beneficial uses, nor do we now believe that these uses of coal combustion wastes present a significant risk to human health and the environment. While some commenters disagreed with our findings, no data or other support for the commenters' position was provided, nor was any information provided to show risk or damage associated with agricultural use. Therefore, we conclude that none of the beneficial uses of coal combustion wastes listed above pose risks of concern." (See 65 FR 32230.) EPA noted that since the original Regulatory Determination, the Agency had found no data or other information to indicate that existing efforts of states, EPA, and other federal agencies had been inadequate to address the environmental issues associated with the beneficial use of CCR that were originally identified in the Regulatory Determination. EPA explained that it had proposed this approach in recognition that some uses of CCR, such as encapsulated uses in concrete, and use as an ingredient in the manufacture of wallboard, provide benefits and raise minimal health or environmental concerns. Consequently, EPA preliminarily concluded that encapsulated uses of CCR, which are common in many consumer products, did not merit regulation based on the available information.

However, EPA noted that the issues were more difficult with respect to unencapsulated uses of CCR and specifically solicited comment on whether such uses should continue to be included as "beneficial use" under the Bevill exemption. EPA explained that unencapsulated uses have raised concerns and therefore merited closer attention. For example, the placement of unencapsulated CCR on the land, such as in road embankments or in agricultural uses, presented a set of issues similar to those that caused the Agency to propose to regulate CCR destined for disposal. But the Agency

also acknowledged that the amounts and, in some cases, the manner in which CCR is used—*i.e.*, subject to engineering specifications and material requirements rather than landfilling techniques—are potentially very different from land disposal.

EPA is retaining the original 2000 Regulatory Determination for CCR that is beneficially used. EPA has made this determination based on consideration of the available information and the RCRA section 8002(n) study factors.

1. Source and Volume of CCR Generated Each Year

The American Coal Ash Association (ACAA) conducts a voluntary, annual survey of the coal-fired electric utility industry to track the quantities of CCR generated and beneficially used. According to the latest survey, the electric utility industry generated nearly 110 million tons of CCR in 2012. Approximately 39 million tons of these CCR was identified by ACAA as beneficially used in either encapsulated or unencapsulated products. An additional 12.8 million tons were placed in mine-fill operations, while the remaining 57.8 million tons were disposed of in landfills and surface impoundments (ACAA, 2013).³³

2. Present Utilization Practices

Based on the beneficial use rates reported by ACAA, approximately 50 percent of the CCR beneficially used on an annual basis falls into two categories: (1) Fly ash used as a direct substitute for Portland cement during the production of concrete (referred to as "fly ash concrete"); and (2) FGD gypsum used as a replacement for mined gypsum in wallboard (referred to as "FGD gypsum wallboard"). Specifically, the 2012 ACAA survey indicates that the largest encapsulated beneficial uses of CCR, by more than a factor of two, are fly ash used in "concrete/concrete products/grout" (12.6 million tons) and FGD gypsum used in "gypsum panel products" (7.6 million tons).

3. Potential Danger, if Any, to Human Health or the Environment From the Reuse of CCR

The risks associated with the disposal of CCR stems from the specific nature of that activity; that is, the disposal of CCR in (often unlined) landfills or surface impoundments, with thousands, if not millions, of tons placed in a single

³³ ACAA (American Coal Ash Association). 2013. 2012 Coal Combustion Product (CCP) Production & Use Survey Report. Farmington Hills, MI 48331. Available online at: <http://www.acaa-usa.org/Portals/9/Files/PDFs/reviseFINAL2012CCPSurveyReport.pdf>

concentrated location. And in the case of surface impoundments, the CCR is managed with water, under a hydraulic head, which promotes rapid leaching of contaminants into neighboring groundwater. The beneficial uses identified as excluded under the Bevill exemption for the most part present a significantly different risk profile.

a. Encapsulated Beneficial Uses

An encapsulated beneficial use is one that binds the CCR into a solid matrix that minimizes mobilization into the surrounding environment. Examples of encapsulated uses include, but are not limited to: (1) Filler or lightweight aggregate in concrete; (2) a replacement for, or raw material used in production of, cementitious components in concrete or bricks; (3) filler in plastics, rubber, and similar products; and (4) raw material in wallboard production.

Since publication of the proposal, EPA has developed a methodology for evaluating encapsulated beneficial uses. A copy of the methodology can be found at <http://www2.epa.gov/coalash/methodology-evaluating-encapsulated-beneficial-uses-coal-combustion-residuals>. EPA applied this methodology to the two largest CCR uses—the use of fly ash as a replacement for Portland cement in concrete, and the use of FGD gypsum as a replacement for mined gypsum in wallboard. A complete copy of the evaluation can be found at http://www.epa.gov/wastes/conservation/imr/ccps/pdfs/ccr_bu_eval.pdf.

The evaluation considered products that meet relevant physical and performance standards, that conform to standard design specifications, and that incorporate fly ash and FGD gypsum from pollution control devices currently used in the United States. Based on the findings of the evaluation, the Agency concluded that environmental releases of constituents of potential concern from CCR fly ash concrete and FGD gypsum wallboard during use by the consumer are comparable to or lower than those from analogous non-CCR products, or are at or below relevant regulatory and health-based benchmarks for human and ecological receptors.

b. Unencapsulated Uses

EPA acknowledged in the proposal that unencapsulated uses generally presented more difficult issues than encapsulated uses. CCR can leach toxic metals at levels of concern, so depending on the characteristics of the CCR, the amount of material placed, how it is placed, and the site conditions, there is a potential for environmental concern. However, EPA cannot

extrapolate from the risk assessments conducted to evaluate the management practices associated with CCR landfills and CCR surface impoundments, because the exposure patterns are too dissimilar: The amounts and manner involved with beneficial use are very different than the thousands, if not millions of tons of CCR that are mounded in a single concentrated location in a landfill. And the potential exposures are entirely unlike surface impoundments, where CCR is managed with water under a hydraulic head, which promotes more rapid leaching of contaminants. By contrast “beneficial uses,” even unencapsulated uses, are typically subject to engineering specifications, and for certain uses, federal oversight, and material requirements. For example, fly ash used as a stabilized base course in highway construction is subject to both regulatory standards under the U.S. Department of Transportation (DOT) and the Federal Highway Administration (FHWA), and engineering specifications, such as the ASTM C 593 test for compaction, the ASTM D 560 freezing and thawing test, and a seven day compressive strength above 2760 kPa (400 psi). (See 75 FR 35163–35165 for additional examples.)

In 1999, EPA conducted a risk assessment of certain agricultural uses of CCR, since this practice was considered the most likely to raise human health or environmental concerns.³⁴ EPA estimated the risks associated with such uses to be within the range of 1×10^{-6} . These results as well as EPA’s conclusion that the use of CCR in agricultural settings was the most likely use to raise concerns, caused EPA to conclude that none of the beneficial uses identified in the 2000 Regulatory Determination warranted federal regulation, because “we were not able to identify damage cases associated with these types of beneficial uses, nor do we now believe that these uses of coal combustion wastes present a significant risk to human health or the environment.” (65 FR 32230, May 22, 2000.)

EPA also noted that beneficially using secondary materials conserves natural resources, and can serve as an important alternative to disposal.

4. Documented Cases in Which Damage to Human Health or the Environment From Surface Run-off or Leachate Has Been Proved

To date, EPA has seen no evidence of damages from the encapsulated beneficial uses of CCR that EPA identified in the proposal. For example, there is wide acceptance of the use of CCR in encapsulated uses, such as wallboard, concrete, and bricks because the CCR is bound into products. However, as of the date of the proposed rule, seven proven damage cases associated with unencapsulated uses have occurred, in which large quantities of unencapsulated CCR were used indiscriminately to re-grade the landscape or to fill old quarries or gravel pits. The proposed rule discussed two of these cases. (See 75 FR 35147.) The first case was in Gambrills, Maryland and involved the disposal of fly ash and bottom ash (beginning in 1995) in two sand and gravel quarries. EPA considers this site a proven damage case, because groundwater samples from residential drinking wells near the site include heavy metals and sulfates at or above groundwater quality standards, and the state of Maryland is overseeing remediation. The second case is the Battlefield Golf Course in Chesapeake, Virginia where 1.5 million yards of fly ash were used as fill and to contour a golf course. Groundwater contamination above MCLs has been found at the edges and corners of the golf course, but not in residential wells. An EPA study in April 2010, established that residential wells near the site were not impacted by the fly ash and, therefore, EPA does not consider this site to be a proven damage case. However, due to the onsite groundwater contamination, EPA considers this site to be a potential damage case.

During the development of this final rule, EPA obtained information on a comparable situation in which large quantities of unencapsulated CCR were placed on the land in a manner that presented significant concerns. The AES coal-fired power plant in Puerto Rico lacked capacity to dispose of their CCR on-site, and off-site landfills in Puerto Rico were prohibited from accepting CCR. In lieu of transporting their CCR off of the island for disposal, AES created an aggregate (“AGREMAX”) with the CCR generated at their facility, and used the aggregate as fill in housing developments and in road projects. Over two million tons of this material was used between 2004 and 2012.

Currently, there is insufficient information to determine whether groundwater has been contaminated as

³⁴ For more information on this risk assessment see EPA’s Notice of Regulatory Determination on Wastes from the Combustion of Fossil Fuels (65 FR 32214, May 22, 2000).

a result of this practice, and thus, EPA cannot classify this as either a proven or potential “damage case.” Nevertheless, the available facts illustrate several of the significant concerns associated with unencapsulated uses. Specifically, the AGREMAX was applied without appropriate engineering controls and in volumes that far exceeded the amounts necessary for the engineering use of the materials. Inspections of some of the sites where the material had been placed showed use in residential areas, and to environmentally vulnerable areas, including areas close to wetlands and surface waters and over shallow, sole-source drinking water aquifers. In addition, some sites appeared to have been abandoned.

Consistent with the proposed rule, EPA does not consider the practices described in this section to be beneficial use, but rather waste management that would be subject to the requirements of the final rule.

5. Alternatives to Current Disposal Methods, the Costs of Such Alternatives, and the Impact of Such Alternatives on the Use of Coal and Other Natural Resources

The beneficial use of CCR is a primary alternative to current disposal methods. And as EPA has repeatedly concluded, it is a method that, when performed correctly, can offer significant environmental benefits, including greenhouse gas (GHG) reduction, energy conservation, reduction in land disposal (along with the corresponding avoidance of potential CCR disposal impacts), and reduction in the need to mine and process virgin materials and the associated environmental impacts.

a. Greenhouse Gas and Energy Benefits

The beneficial use of CCR reduces energy consumption and GHG emissions in a number of ways. Three of the most widely recognized beneficial applications of CCR are the use of coal fly ash as a substitute for Portland cement in the manufacture of concrete, the use of FGD gypsum as a substitute for mined gypsum in the manufacture of wallboard, and the use of CCR as a substitute for sand, gravel, and other materials in structural fill. Reducing the amount of cement, mined gypsum, and virgin fill produced by substituting CCR leads to large supply chain-wide reductions in energy use and GHG emissions. Specifically, the RIA estimates three-year rolling average of 53,054,246 million British thermal units (MMBtu) per year in energy savings and 11,571,116 tons per year in GHG (*i.e.*, carbon dioxide and methane) emissions reductions in 2015. This estimate is

likely to underestimate the total benefits that can be achieved from all beneficial uses. Furthermore, the use of fly ash generally makes concrete stronger and more durable. This results in a longer lasting material, thereby marginally reducing the need for future cement manufacturing and corresponding avoided emissions and energy use.

b. Benefits From Reducing the Need To Mine and Process Virgin Materials

CCR can be substituted for many virgin materials that would otherwise have to be mined and processed for use. These virgin materials include limestone to make cement, and Portland cement to make concrete; mined gypsum to make wallboard, and aggregate, such as stone and gravel for uses in concrete and road bed. Using virgin materials for these applications requires mining and processing, which can impair wildlife habitats and disturb otherwise undeveloped land. It is beneficial to use secondary materials—provided it is done in an environmentally sound manner—that would otherwise be disposed of, rather than to mine and process virgin materials, while simultaneously reducing waste and environmental footprints. Reducing mining, processing and transport of virgin materials also conserves energy, avoids GHG emissions, and reduces impacts on communities.

c. Benefits From Reducing the Disposal of CCR

Beneficially using CCR instead of disposing of it in landfills and surface impoundments also reduces the need for additional landfill space and any risks associated with their disposal. In particular, the United States disposed of over 57.8 million tons of CCR in landfills and surface impoundments in 2012, which is equivalent to the space required of 20,222 quarter-acre home sites under eight feet of CCR.

As discussed in the final rule RIA, the current beneficial use of CCR as a replacement for industrial raw materials (*e.g.*, Portland cement, virgin stone aggregate, lime, gypsum) provides substantial annual life cycle environmental benefits for these industrial applications. Specifically, the three-year rolling average of environmental benefits estimated for 2015 includes: (1) 53,054,246 MMBtu per year in energy savings; (2) 1,661,900 million gallons per year in water savings; (3) 11,571,116 tons per year in GHG (*i.e.*, carbon dioxide and methane) emissions reductions; (4) 45,770 tons of criteria air pollutant (*i.e.*, NO_x, SO_x, particulate matter, and CO) emissions

reductions; and (5) 3,207 pounds of toxic air pollutant (*i.e.*, mercury and lead) emissions reductions. All together, the beneficial use of CCR in 2015 is estimated to provide over \$2.3 billion in annual national environmental benefits. In addition, since EPA estimates annual baseline disposal costs of approximately \$2.4 billion for the just over 50 percent of tons disposed each year, current beneficial use and minefilling also result in annual material and disposal cost savings of approximately \$2 billion annually.

6. Current and Potential Utilization of CCR

In 2012, nearly 36 percent (39 million tons) of CCR were beneficially used (excluding minefill operations) and nearly 12 percent (12.8 million tons) were placed in minefills. (This compares to 23 percent of CCR that were beneficially used, excluding minefilling, at the time of the May 2000 Regulatory Determination, and represents a significant increase.)

7. Conclusions

On balance, after considering all of the available information, EPA has concluded that the most appropriate approach toward beneficial use is to retain the May 2000 Regulatory Determination that regulation under subtitle C of the beneficial use of CCR is not warranted. EPA has also determined that regulation under subtitle D is generally not necessary for these beneficial uses.

As discussed in the preceding section, the most important of the section 8002(n) factors are those relating to the potential risks to human health and the environment. See *e.g.*, *Horsehead Resource Development Co. v. EPA*, 16 F.3d 1246, 1258 (D.C. Cir., 1994) (Upholding EPA’s interpretation that wastes resulting from the combustion of mixtures of Bevill-exempt and non-exempt wastes could only retain Bevill-exempt status so long as the combustion waste remained of low toxicity); *EDF v. EPA*, 852 F.2d 1316, 1328–1329 (D.C. Cir. 1988) (Overturning EPA rule that included as Bevill exempt, wastes that were not of low toxicity). EPA is adopting this Regulatory Determination in recognition that many uses of CCR, such as encapsulated uses in concrete, and use as an ingredient in the manufacture of wallboard, provide environmental benefits and raise minimal health or environmental concerns. To date, the information available does not demonstrate the existence of any risks associated with encapsulated uses of CCR that merit

regulation under either subtitle C or subtitle D of RCRA.

While there can be some risks associated with unencapsulated uses—for example, the placement of unencapsulated CCR on the land, such as in large scale fill operations or in agricultural uses, depending on the specific site conditions—in general the amounts and, in some cases, the manner in which they are used are very different than land disposal. For example, agricultural uses involve the placement of inches rather than tons of CCR, and placement of CCR in a thin layer rather than mounded in a single concentrated location. In addition, these uses are subject to engineering specifications and materials requirements, which will limit the ultimate amount of material placed on the land.

EPA recognizes that several proven damage cases involving the large-scale placement, akin to disposal, of CCR have occurred under the guise of “beneficial use”—the “beneficial” use being the filling up of old quarries or gravel pits, or the re-grading of landscape with large quantities of CCR. EPA did not consider this type of use as a “beneficial” use in its May 2000 Regulatory Determination, and still does not consider this type of use to be covered by the exclusion. Therefore, the final rule explicitly removes these types of uses from the category of beneficial use, and from this Regulatory Determination. As discussed in the next section of this preamble, EPA has adopted criteria in the final rule to ensure that inappropriate uses that effectively are disposal will be regulated as disposal. The final rule expressly defines the placement of CCR in sand and gravel pits or quarries as disposal in a landfill. In addition, the final rule provides that the use of large volumes of CCR in restructuring landscape that does not meet specific criteria will constitute disposal.

While EPA has not definitively concluded that all unencapsulated beneficial uses are “safe,” based on the current record for this rulemaking, EPA is unable to point to evidence demonstrating that the unencapsulated uses subject to this Determination warrant federal regulation. While the absence of demonstrated harm in this instance is not proof of safety, neither is the lack of information proof of risk.³⁵

In this regard, EPA notes that many states have developed beneficial use programs that allow the use of CCR,

provided they are demonstrated to be non-hazardous materials; and many require a site specific assessment before authorizing placement on the land of large amounts of unencapsulated CCR. For example, Wisconsin’s Department of Natural Resources has developed a regulation (NR 538 Wis. Adm. Code), which includes a five-category system to allow for the beneficial use of industrial by-products, including coal ash, provided they meet the specified criteria. In addition, the ASTSWMO 2006 Beneficial Use Survey Report states that a total of 34 of the 40 reporting states, or 85 percent, indicated they had either formal or informal decision-making processes or beneficial use programs relating to the use of solid wastes. (http://www.astswmo.org/Files/Policies_and_Publications/Solid_Waste/2007BUSurveyReport11-30-07.pdf)³⁶ Because EPA has not identified significant risks associated with the beneficial uses covered by this Regulatory Determination, the adequacy of these state programs does not factor into EPA’s Determination. Nevertheless, to the extent that these materials do have the potential to pose risk at an individual site, the fact that many states exercise regulatory oversight of these materials provides an additional level of assurance.

Finally, EPA does not wish to inhibit or eliminate the measurable environmental and economic benefits derived from the use of this valuable material given the current lack of evidence affirmatively demonstrating an environmental or health risk. Consequently, EPA is confident that the combination of the final rule, EPA guidance, current industrial standards and practices, and in many cases, state regulatory oversight is sufficient to address concerns associated with the beneficial uses to which this Determination applies.

V. Development of the Final Rule—RCRA Subtitle D Regulatory Approach

As previously discussed in Unit II of this document, the authority to develop and promulgate the national minimum criteria governing the disposal of CCR in landfills and surface impoundments is found under the provisions of sections 1008(a), 4004, and 4005(a) of RCRA (*i.e.*, subtitle D of RCRA). These authorities,

however, do not provide EPA with the ability to issue permits, require states to issue permits, approve state programs to operate in lieu of the federal program, or to enforce any of the requirements addressing the disposal of CCR. Consequently, EPA designed the proposed RCRA subtitle D option to ensure that the requirements will effectively protect human health and the environment within those limitations. The final rule establishes self-implementing requirements—primarily performance standards—that owners or operators of regulated units can implement without any interaction with regulatory officials.

In developing the subtitle D option for the proposal, EPA considered a number of existing programs as relevant models. EPA drew most heavily on the existing 40 CFR part 258 program applicable to MSWLFs. While this program does not address CCR disposal in surface impoundments, it provided EPA with a general regulatory framework that addressed all aspects of disposal in certain land-based units. Given the Agency’s expansive history and experience with these requirements, EPA concluded that the part 258 criteria with certain modifications for other land-based disposal units (*i.e.*, surface impoundments) represented a reasonable balance between ensuring the protection of human health and the environment from the risk of CCR disposal and the absence of any regulatory oversight. (See 75 FR 35192–35195.)

EPA also considered that many of the technical requirements developed to specifically address the risks from the disposal of CCR as part of the subtitle C alternative would be equally justified under a RCRA subtitle D regulatory regime. The factual record—*i.e.*, the risk analysis and the damage cases—supporting such requirements was the same, irrespective of the statutory authority under which the Agency was operating. Thus, several of the provisions under RCRA subtitle D either corresponded to the proposal under RCRA subtitle C, or were modeled after the existing subtitle C requirements; for example, EPA proposed the same MSHA-based structural stability standards for surface impoundments under the subtitle C and subtitle D options. However, because there is no corresponding guaranteed permit mechanism under the RCRA subtitle D requirements, EPA also considered the 40 CFR part 265 interim status requirements for hazardous waste facilities, which were designed to operate in the absence of a permit. These requirements were particularly

³⁵ The Agency is currently developing a Framework to address the risks associated with the beneficial use of unencapsulated materials. This Framework is expected to be finalized in 2015. See Unit VI of this document for more information.

³⁶ EPA has worked with the states to support the development of a national database on state beneficial use determinations. Information on the beneficial use determination database can be found on the Northeast Waste Management Officials’ Association (NEWMOA) Web site at <http://www.newmoa.org/solidwaste/bud.cfm>. This database helps states share information on beneficial use decisions providing for more consistent and informed decisions.

relevant in developing the requirements for surface impoundments since such units are not regulated under 40 CFR part 258. Beyond their self-implementing design, these requirements provided a useful model because, based on decades of experience in implementing these requirements, EPA had assurance that these requirements were protective for a variety of waste, under a wide variety of site conditions.

In an effort to ensure that the proposed RCRA subtitle D requirements would achieve the statutory standard of “no reasonable probability of adverse effects on health and the environment” in the absence of guaranteed regulatory oversight, EPA also proposed to require facilities to obtain third party certifications and to provide enhanced state and public notifications of actions taken to comply with the regulatory requirements. Specifically, EPA proposed that certain technical demonstrations made by the owner or operator be certified by an independent registered professional engineer or hydrologist, in order to provide verification and otherwise ensure that the provisions of the rule were properly applied. EPA also provided a regulatory definition of the term, “independent registered professional engineer or hydrologist,” to identify the minimum qualifications necessary to make these certifications. While EPA acknowledged that relying upon a third party certification was not the same as relying upon a state or federal regulatory authority and was not expected to provide the same level of independence as a state permit program, the availability of meaningful third party (*i.e.*, independent) verification provided critical support that the rule would achieve the statutory standard, as it would provide at least some degree of control over a facility’s discretion in implementing the rule.

As part of the notification requirements, EPA further proposed that all owners and operators create and maintain an operating record and publically accessible Web site, containing comprehensive documentation of compliance with the rule. EPA also proposed that owners or operators provide notification to the state and the public of third party certifications as well as other information documenting actions taken to comply with the technical criteria of the rule.

A. The Self-Implementing Approach

While the vast majority of state and industry commenters supported regulating the management of CCR

under subtitle D of RCRA, a very limited number of commenters favored the proposed self-implementing option. Most commenters argued that if the Agency were to adopt the proposed subtitle D approach it would most certainly result in parallel and redundant regulatory programs for CCR in many states, creating an unworkable situation for industry, as well as the state. Some commenters argued that under this dual regulatory approach, an owner or operator of a CCR unit could conceivably be in non-compliance with both a federal requirement and an independently administered state regulatory requirement, subjecting the owner or operator to both a citizen suit enforcement action in federal court for the alleged violation and to a wholly separate enforcement action in state court for violation of the parallel state requirement. Commenters argued that this regulatory construct made no sense and would waste federal and state judicial resources and company resources, as well as possibly resulting in inconsistent federal and state court determinations with respect to an identical regulatory requirement. It also could result in duplicative federal and state penalties for essentially the same regulatory infraction.

Commenters further argued that the prescriptive one-size-fits-all approach was overly stringent and inflexible and had the potential to greatly disrupt implementation of a state’s regulatory programs, which have been tailored to provide for site specific conditions and situations. Moreover, commenters argued that because of the many state regulatory programs addressing CCR disposal, there would be many instances where state requirements could be in conflict with, in addition to, or separate from the federal requirements and it was unclear how these differences would be resolved.

Many commenters simply argued that a permitting program similar to that for MSWLFs was the only viable approach for the regulation of CCR. A significant number of commenters, however, proposed various alternative approaches for regulating CCR disposal under subtitle D of RCRA. One option would have EPA allow qualified state programs to directly administer the subtitle D requirements for CCR when the state regulatory program meets or exceeds the federal requirements, thereby minimizing duplicative regulations and avoiding the self-implementing “one size fits all” approach contained in EPA’s proposal. This option, commenters reasoned, could be implemented utilizing a process developed by the Agency for evaluating

whether the state’s CCR regulations were equivalent to the federal minimum criteria (much like EPA does now in the case of MSWLFs under 40 CFR part 258). Another suggested approach involved EPA clarifying that a state can be more restrictive than the federal rule, and that where a state has a subtitle D regulatory program that is more restrictive, the state program and permitting process would take precedence over any self-implementation aspects of a final rule. (The proposed rule had simply stated that an owner or operator must comply with any other applicable federal, state, tribal or local laws or other requirements.) Commenters also proposed a third option, similar to the 40 CFR part 258 program, recognizing that EPA cannot approve state programs in this rule. Specifically, 40 CFR part 258 provides a definition for “Director of an approved state” that means they are the chief administrative officer of a state agency responsible for implementing the state permit program that is deemed to be adequate by EPA under regulations published pursuant to sections 2002 and 4005 of RCRA. The commenters suggested that the final rule adopt a similar approach by defining a “state permit program” and allowing a state permit program that met the definition to approve compliance with a specified regulatory requirement, *e.g.*, landfill design. The commenter suggested the following definition: “state permit program means a permit program implemented by a state agency that adopts and implements the minimum requirements for the disposal of coal combustion residuals outlined in this final rule.” The commenter claimed that such an approach should not affect enforcement through citizen suits under RCRA section 7002 or by EPA under RCRA section 7003. Taking such an approach, commenters reasoned, would allow states to utilize their own enforcement authority and not rely upon the citizen suit authority under RCRA section 7002. Furthermore, allowing states to consider alternative approaches to the technical standards may give states an incentive to adopt the minimum requirements of the final federal rule into their state permit programs.

As noted, many commenters suggested that EPA rely on the same combination of RCRA statutory authorities, *i.e.*, RCRA sections 4010(c) and 4005(c), to establish controls for CCR units that it employed in promulgating federally enforceable subtitle D rules for MSWLFs and for non-MSWLFs that receive household

hazardous waste and small quantity generator waste under 40 CFR parts 257 and 258. RCRA sections 4010(c) and 4005(c), the commenters reasoned, provides EPA that authority because non-hazardous waste CCR disposal facilities have the potential to receive household wastes or conditionally exempt small quantity generator waste, whether or not such waste is actually received at the CCR disposal facility. Commenters contended that the combination of these two provisions could enable EPA to promulgate non-hazardous waste rules for CCR that could be directly administered through state permitting programs and backed up by direct EPA enforcement powers in those states that fail to adequately implement the federal rules. Such an approach, commenters concluded provides the Agency with the enforcement authority it desires under a subtitle D regulatory program, while enabling states to have a prominent role in the administration of any subtitle D rules, and preventing the duplication of potentially conflicting federal and state controls.

Finally, some commenters encouraged EPA to request from Congress the statutory authority necessary to propose non-hazardous regulations under subtitle D that could be implemented by the states and provide federal enforceability (similar to RCRA's part 258 requirements for MSWLFs). Commenters argued that states should be allowed to enforce compliance through a traditional permitting system, and that solid waste operating permits are critical to ensuring coal ash disposal facilities design, construct, operate and close their waste facilities safely. Commenters argued that permits are important because they can dictate the use of specific operating practices and control technologies that may be essential for minimizing releases. Permits also provide an important enforcement vehicle, as well as a process by which the public can be informed and participate in the siting, operation and closure of the waste disposal unit.

While the Agency appreciates commenters' attempts to craft alternative approaches to address the limitations in the proposed self-implementing subtitle D option, EPA has not "chosen" to design standards under subtitle D that are self-implementing. The sections of RCRA that are currently applicable to CCR—sections 1008(a), 4004(a), and 4005(a)—only authorize the Agency to establish minimum national criteria that apply to "facilities."

As previously discussed, these provisions do not authorize EPA to require that facilities obtain a permit from EPA or a state. The fact that section 4004(a) does not contain any provision that either expressly requires a permit to manage waste, such as in section 3005, or that requires states to adopt a permit program, such as in section 4004(c)(1), provides strong evidence that Congress did not authorize EPA to impose such a requirement on facilities managing solid waste. Compare 42 U.S.C. 6925(a), 6944(a), and 6945(c)(1). This is further confirmed by the fact that Congress thought it necessary to expressly add provisions to require state permit programs in 4010(c) and 4005(c). And the fact that the HSWA provisions are limited to two specifically enumerated types of units provides further evidence that Congress intended to authorize EPA to require permits only for these units.

The restriction that the criteria apply only to "facilities" also means that EPA cannot establish any requirements on states or state programs, either directly or indirectly. This means, for example, that EPA cannot adopt a regulation that restricts certain provisions to those "state permit programs" that meet EPA requirements, as one commenter suggested, since this would indirectly regulate state programs—leaving aside that EPA never proposed anything of the sort. This also means that EPA cannot require a facility to obtain state approval, as this not only presupposes the existence of a state permit program, but also that the state will approve the facility action on the basis of EPA's criteria. EPA cannot condition a facility's compliance on actions beyond its control.

However, these provisions restrict EPA's authority only. The legislation is clear that these are minimum requirements only, and without preemptive effect; states may therefore impose more stringent requirements, including the requirement that CCR facilities obtain a permit. This is also wholly consistent with longstanding EPA interpretations. See 44 FR 53438, 53439 (September 13, 1979) ("the standards established in the criteria constitute minimum requirements. These criteria do not preempt other state and federal requirements. Nothing in the Act precludes the imposition of additional obligations under authority of other laws on parties engaged in solid waste disposal."); see also 44 FR 45066 (July 31, 1979) ("EPA establishes only 'minimum' requirements under this portion of the Act which should not prevent States from developing broader programs or stricter standards under

authority of State law."). States may also incorporate the federal requirements into state law—whether through revisions to existing legislation or regulation, or through incorporating them into any permits issued to CCR facilities. Such an approach would also resolve commenters' concerns about the potential for "parallel and redundant regulatory programs."

While subtitle C and 4005(c) provide for state oversight on rule implementation and allow approved state requirements to operate in lieu of federal criteria, the Agency lacks the authority to do so under the subsections of RCRA currently applicable to CCR. The provisions applicable to solid waste—sections 1008(a)(3), 4003, 4004(a) and 4005(a)—establish a regulatory structure that differs in key respects from those established under subtitle C and for MSWLFs under section 4005(c). Under subtitle C and section 4005(c), Congress required EPA to establish federal criteria that will serve as national minimum standards, which is comparable to the authority under section 4004(a). But subtitle C and section 4005(c) also include detailed provisions governing both the state implementation of those requirements and the relationship between the federal requirements and the state programs that implement them. No comparable provisions appear in either section 4004(a) or section 4003, which governs the approval of state SWMPs. And the consequences of these omissions are significant.

Subtitle C of RCRA contains several provisions that establish the relationship between the federal program and state requirements; these include provisions authorizing EPA to approve state programs and to retain a direct role in the implementation of the federal minimum requirements, whether through continued oversight of state implementation or direct implementation of the regulations. See, 42 U.S.C. 6926, 6928(a)(2), and 6929. For purposes of this issue, the most critical of these is the explicit direction in section 3006 that authorized state programs "operate in lieu of the Federal program." 42 U.S.C. 6926(b), (c)(1). See also 42 U.S.C. 6929 (prohibiting the adoption of less stringent state requirements than those in EPA regulations, and authorizing states to establish more stringent requirements).

The provisions for MSWLFs under section 4005(c) are less detailed, but establish a similar regulatory structure. Section 4005(c)(1) expressly directs the states to "adopt and implement a permit program or other system of prior approval and conditions," for covered

facilities in order to implement federal requirements established for such facilities. 42 U.S.C. 6945(c)(1). The statute directs EPA to determine the adequacy of such programs, and directs EPA to enforce the federal requirements in states that have not adopted an adequate program. 42 U.S.C. 6945(c)(1)(C), (2). While less detailed than the provisions under subtitle C, section 4005(c) establishes a system that is equally predicated on mandated implementation by a state regulatory authority of the federal requirements, rather than the potential coexistence of two separate regulatory systems.

The absence of any similar provisions in the “solid waste” provisions of subtitle D demonstrates that Congress intended to create a different regulatory structure. EPA’s role under sections 1008(a)(3) and 4004(a) is to establish minimum criteria to determine which facilities “shall be classified as sanitary landfills and which shall be classified as open dumps,” and to encourage states to use the criteria as a part of their solid waste management planning. Under this regulatory structure, Congress intended that the federal requirements apply directly to facilities and operate independent of state involvement, unless *the state* chooses to do otherwise. The ability to approve state SWMPs under section 4003 does not alter this relationship. Indeed, the fact that Congress thought it necessary to revise section 4005 to include the specific provisions in subsection (c) confirms that Congress did not believe such authority already existed under sections 4003 and 4004.

Approval of a state’s SWMP pursuant to section 4003 qualifies the state to receive federal funds (no longer available) and authorizes the state to issue compliance schedules; but unlike under section 3006 or 4005(c), an authorized plan does not affect the federal minimum standards themselves, or authorize states to do so. Section 4003 contains nothing that explicitly or implicitly authorizes state requirements to operate “in lieu of” the federal requirement as a consequence of EPA approval of the state plan. The closest analogue is that states with an approved plan may establish a “timetable or schedule” to bring existing open dumps into compliance with the federal requirements; but notably, Congress only authorized the state to modify the timeframes by which such facilities must be in compliance, not the substantive requirements themselves. 42 U.S.C. 6945(a).

The combination of this regulatory structure and the need to demonstrate that the final rule achieves section

4004(a)’s protectiveness standard based on the record at the time the rule is promulgated also effectively limits EPA’s ability to establish the kind of regulatory provisions commenters have requested (*i.e.*, establish an alternative that allows a state permit program to approve a less stringent technical requirement based on site specific conditions). Because as discussed in Unit IV of this document, EPA is currently unable to reach a conclusion regarding the adequacy of state programs, EPA cannot demonstrate that such an alternative would meet the section 4004(a) standard. And in the absence of a mandatory mechanism for subsequent public involvement and review, which would create decisions with their own record, subject to judicial review in their own right, the lack of such information is dispositive.

With respect to the proposal to rely on RCRA sections 4010(c) and 4005(c) authorities, EPA also disagrees that this is a viable option. As the comment appears to acknowledge, construing sections 4010(c) and 4005(c) to apply to CCR units on the basis that they could *potentially* receive conditionally-exempt small quantity generator waste is inconsistent with EPA’s longstanding interpretation of those sections. EPA directly addressed this issue nearly 20 years ago in the preamble for EPA’s final rules at 40 CFR part 257, subpart B. In that discussion which we summarize in the next several paragraphs, EPA explained that the proposed rule was written to provide that only those non-municipal non-hazardous waste disposal units which meet the requirements in §§ 257.5 through 257.30 “may receive” CESQG waste, as required by RCRA section 4010(c). Any non-municipal non-hazardous waste disposal unit that did not meet the proposed requirements may not receive CESQG hazardous wastes. The proposal was written to apply to non-municipal non-hazardous waste disposal units that receive CESQG waste for storage, treatment, or disposal, including such units as surface impoundments, landfills, land application units and waste piles. The regulatory definition of the term “disposal” cover all placement of wastes on the land. See 40 CFR 257.2.

EPA further noted that several commenters addressed the Agency’s interpretation of the statutory language “may receive.” One commenter supported the Agency’s decision to limit the proposed regulatory requirements to only those non-municipal non-hazardous waste disposal units that receive CESQG wastes. Another commenter, however, stated that a closer reading of section 4010(c) reveals

that Congress was not only concerned about modifying the criteria for “facilities that may receive hazardous household wastes or hazardous wastes from small quantity generators . . .” but also for “facilities potentially receiving such wastes.” According to the commenter, the “may receive” clause of the first sentence in section 4010(c) merely refers to whether a facility may legally receive CESQG waste for disposal. The “potentially receiving such wastes” clause of the third sentence of Section 4010(c) refers to the actual potential for such facilities to receive CESQG wastes. The potential for CESQG waste to be disposed of at many types of industrial D landfills is high even with the proposed prohibition under § 261.5. It is the “potentially receiving” clause that specifically commands the Agency to promulgate provisions for all industrial facilities that could potentially receive CESQG wastes.

EPA disagreed with the commenter’s interpretation of the statutory language in RCRA section 4010(c). More specifically, for a number of reasons, the Agency did not believe that the statutory language cited by the commenter evidenced congressional intent that the revised criteria promulgated in the rule should address disposal of solid waste in all industrial disposal facilities. First, EPA believed that the commenter erred by focusing only on the “facilities potentially receiving” language in the last sentence of section 4010(c). If one reviews this language together with the statutory language in RCRA section 4010(a), it is clear that Congress did not intend for the revised criteria being promulgated in this rule to apply to all industrial landfills.

RCRA section 4010(a) required EPA to conduct a study of the then existing guidelines and criteria issued under RCRA sections 1008 and 4004 which were applicable to “solid waste management and disposal facilities, including, but not limited to landfills and surface impoundments.” 42 U.S.C. 6949a(a). This statutory language does indeed suggest that EPA was to study a wide range of solid waste disposal facilities, including industrial landfills. (As the commenter stated, because the information on industrial disposal facilities was quite limited, EPA’s report to Congress did focus on municipal landfills.)

However, the statutory language in section 4010(c) directing EPA to promulgate a rule revising the criteria in 40 CFR part 257 limits the rule’s applicability only to those facilities which may receive hazardous

household waste or small quantity generator waste. 42 U.S.C. 6949a(c). If Congress had intended the revised criteria under section 4010(c) to apply to all solid waste disposal facilities, including industrial landfills and surface impoundments, it clearly could have done so by enacting language similar to that already used in section 4010(a).

Secondly, the legislative history of RCRA section 4010 suggests that Congress expressly rejected a provision that would have required rules to be promulgated under section 4010(c) to apply to the entire universe of RCRA subtitle D solid waste disposal facilities. Indeed, the House version of section 4010 would have required EPA to promulgate revised guidelines and criteria such that they would be applicable to all “solid waste management and disposal facilities, including, but not limited to landfills and surface impoundments. . . .” H.R. 2867, section 30, 98th Cong., 1st Sess. (as introduced in the Senate on November 9, 1983). However, the Conference Committee instead adopted a Senate amendment which limited the scope of the revised criteria to those facilities that may receive hazardous household waste or small quantity generator waste. H. Rept. No. 98–1133, 98th Cong., 2d Sess., at 116–117.

Another indication that RCRA section 4010(c) was not intended to cover the entire universe of solid waste disposal facilities is the fact that subsequent to the enactment of section 4010(c) (as part of the Hazardous and Solid Waste Amendments in 1984), a number of bills were introduced in Congress which would have either authorized or required EPA to issue additional regulations that would address all disposal facilities receiving industrial waste as opposed to addressing those which may receive CESQG waste as stated in section 4010(c). See, e.g., H.R. 3735, “Waste Materials Management Act of 1989,” section 324 (would have required EPA to promulgate standards for the management of industrial solid waste) (Luken Bill); S. 1113, “Waste Minimization and Control Act of 1989,” section 204 (would have required EPA to promulgate requirements for facilities that manage different types of industrial waste) (Baucus Bill). Neither of these provisions (although neither was enacted) would have been necessary if RCRA section 4010(c) required EPA to promulgate revised criteria for all types of industrial disposal facilities. (See 61 FR 34252, 34254–55 (July 1, 1996).)

The commenter on the proposed CCR rule makes essentially the same argument based on the same language in

4010(c) that EPA rejected in the 1996 rule. The commenter provided no legal analysis that contravenes the basis for EPA’s interpretation of subtitle D. EPA thus declines to reopen or reconsider this interpretative question. EPA also notes that in any case, information in its record for this rulemaking indicates that CCR landfills or surface impoundments do not actually or potentially receive CESQG wastes.

Nevertheless, EPA recognizes that this regulatory structure gives rise to legitimate concerns about the potential for duplicative or conflicting state and federal regulatory systems. EPA has adopted measures to address these concerns within the confines of the regulatory structure that Congress established in subtitle D. First, EPA has made every effort to ensure that the final rule does not establish any requirements that truly conflict with existing state programs. To clarify, this does not mean that the requirements are necessarily the same, but rather that it is possible to comply with both federal and state requirements simultaneously. Or in other words, compliance with the more stringent standard—whether federal or state—will ensure compliance with the less stringent. Based on the comments received, EPA is aware of no example of a situation in which truly conflicting requirements will exist. Second, as discussed, these regulations do not constrain or direct state action. States can impose more stringent or different requirements, such as requiring a permit. Nor does the regulation require the state to enforce the federal requirements; even with promulgation of the final rule, the decision to bring an action under section 7002 remains entirely within the state’s discretion. Third, as discussed in greater detail in Unit IX of this document, EPA has developed a number of measures to clarify the relationship between an individual state program, or particular requirements, and the federal criteria. Specifically, for those states that choose to submit a revised SWMP that incorporates the federal criteria, EPA intends to rely on the existing processes in 40 CFR part 256 relating to approval of SWMPs. EPA expects that approval of a state SWMP, while it cannot prevent a citizen group from filing a lawsuit, will carry substantial weight in any court proceeding charged with determining whether compliance with state requirements constitutes compliance with the federal criteria.

B. Enforceability of the Subtitle D Approach

Numerous commenters raised concern that reliance on a RCRA citizen suit as

the basic enforcement mechanism to address non-compliance with the CCR requirements presents environmental justice concerns. Commenters argued that as a practical matter, this self-implementing approach would result in unenforced regulations affecting neighborhoods where environmental, legal, and technical services are unavailable or difficult to obtain. Commenters stated that it would be highly unreasonable for EPA to place the burden of enforcement of the CCR regulations on citizens, arguing that it is EPA’s duty to make sure federal regulations protecting human health and the environment are enforced fairly and effectively, and that enforcement by citizen suits puts an unacceptable burden on low income populations located near these facilities. Commenters contended that environmental justice communities were the least likely to mount a serious challenge to the industry because low income people are often less well-educated, have less access to computers and internet technology, are less knowledgeable of how to access and interpret environmental data, and are the least likely to have the resources for a time consuming legal battle. Commenters argued that given the high number of damage cases in this industry, it was clear that the industry cannot police itself and neither can state governments. For these reasons, commenters asserted that the regulations and the enforcement must come from the federal level.

Conversely, other commenters were encouraged by the opportunity to enforce the rule through citizen suits, stating that it would result in very effective regulation since citizens have shown no reluctance to challenge companies that they believe are not responsibly following environmental regulations. Similarly, other commenters noted that other incentives existed to comply with the regulations, including the possibility of state and third party litigation (for both regulatory compliance and actual damages), and the requirements of investors, lenders, and insurers to demonstrate compliance with environmental requirements, *i.e.*, investors and lenders typically condition capital investments and loans on environmental compliance. Commenters also noted that incentives to comply were created by environmental insurance policies, which “invariably exclude damage claims arising from non-compliance from covered events” as well as typical corporate policies that call for

environmental compliance as a standard operating procedure.

Other commenters focused on the role of the professional engineer in the self-implementing framework, arguing that EPA is requiring the certifying professional to inappropriately take on a quasi-regulatory and enforcement role which places the certifying professional at great risk of being subject to nuisance lawsuits from project opponents, creating a scenario where some professionals may decline to be involved in such reviews. Still other commenters argued with EPA's basic premise that the RCRA subtitle D program lacks federal enforceability. Commenters contended that EPA's concerns about the lack of direct federal enforcement authority failed to recognize the significant enforcement opportunities available under existing law, namely the "imminent and substantial endangerment authority" under RCRA section 7003 to take action against any CCR unit that posed a risk to human health and the environment, as well as, the imminent and substantial endangerment authorities under CERCLA, as well as other federal authorities, including the federal Clean Water Act, to address circumstances where a CCR unit posed a threat.

EPA acknowledges that the lack of federal enforcement under Subtitle D presents challenges. However, as discussed above, issuing minimum national standards under the authority that is currently applicable to CCR (*i.e.*, subtitle D) is significantly more protective than the current federal standards in part 257 that apply to these wastes. It is more consistent with EPA's obligations under RCRA to put in place the additional protections that, based on the information currently available, are needed to protect health and the environment. As part of those requirements, EPA has developed a number of provisions designed to facilitate citizens to enforce the rule pursuant to RCRA section 7002. Chief among these is the requirement to publicly post monitoring data, along with critical documentation of facility operations, so that the public will have access to the information to monitor activities at CCR disposal facilities. Moreover, as noted elsewhere, a state seeking EPA's approval for a State SWMP would be required to conduct a public comment process to avail itself of the benefits of an EPA's approval.

EPA also agrees that the Agency retains the authority to bring an action under RCRA section 7003, as well as other statutes, when the facts support the necessary findings. However, an action under section 7003 does not

enforce the requirements of this rule. Certainly, EPA believes that the failure to comply with the requirements of the rule increases the probability that an imminent and substantial endangerment may arise, but the fact that a facility has not complied with one or more of the requirements of this rule does not *per se* establish that a section 7003 order is warranted.

The Agency also acknowledges that the self-implementing frameworks could potentially place certifying professionals at risk for lawsuits; several of the performance standards in the proposed rule were adopted from part 258, which were designed to operate in the context of an approved state program, under the oversight of a state regulatory authority, rather than a purely private entity. In part due to this concern, the Agency has re-evaluated the performance standards throughout the final rule, and has revised them where necessary to ensure that the requirements are sufficiently objective and technically precise that a qualified professional engineer will be able to certify that they have been met.

C. Reliance on Certification by Independent Qualified Professional Engineers

As previously discussed, the majority of commenters were highly skeptical of a regulatory approach that substituted state oversight with an owner or operator hiring a consultant or professional, *i.e.*, an independent registered professional engineer or hydrologist, to certify compliance with a federal regulatory requirement and posting that information on an internet site. More specifically, commenters were concerned that relying almost entirely on professional certifications for ensuring regulatory compliance did not seem like a reliable way to provide for protection of human health and or the environment.

As explained in Unit IV.A of this document, EPA is issuing national minimum criteria under subtitle D to put in place the technical requirements the Agency has determined are necessary to protect human health and the environment from the disposal of CCR in surface impoundments and landfills, while the Agency completes its Bevill Determination. EPA is relying on the certification in this context to partially compensate for one of the more significant limitations under the authorities currently applicable to CCR: The lack of any guaranteed regulatory oversight mechanism. However, EPA disagrees that the rules rely "almost entirely" on professional engineers to protect human health and the

environment. The final rule relies on multiple mechanisms to ensure that the regulated community properly implements requirements in this rule. As one part of this multi-mechanism approach, owners or operators must obtain certifications by qualified individuals verifying that the technical provisions of the rule have been properly applied and met. However, a more significant component supporting EPA's determination that the technical requirements will achieve the level of protection required under section 4004(a) is the performance standards that the rules lay out. These standards impose specific technical requirements, and, even where they provide flexibility, will operate to significantly constrain the facility's activities and discretion. The certifications required by the rule supplement these technical requirements, and while they are important, they are not the sole mechanism ensuring regulatory compliance.

The rule also contains a number of provisions requiring the owner or operator to document their compliance with the rule's technical requirements, and to post those documents on a publically available Web site in a timely and transparent manner. The rule also requires owners or operators to notify State Directors of numerous actions, including that certified demonstrations have been completed. This transparency will facilitate citizen and state oversight and overall enforcement of the requirements. Finally, the rule establishes specific timeframes by which these actions must occur, including timeframes by which facilities must document compliance with the various technical requirements in the rule. Timeframes have been established for: (1) Technical compliance demonstrations made by the owner or operator; (2) certifications made by a qualified professional engineer verifying the technical accuracy and veracity of the compliance demonstration; (3) notifications made to the State Director; (4) submittals (*e.g.*, data, reports and other documentation) to the operating record; and (5) postings to the owner or operator's publicly accessible internet site. Further details pertaining to all of these requirements can be found in the Recordkeeping, Notification, and Posting of Information to the Internet section of the regulations published in this rule.

1. Changes to the Definition of Independent Registered Professional Engineer or Hydrologist

EPA proposed to define "*independent registered professional engineer or*

hydrologist” to mean a scientist or engineer who is not an employee of the owner or operator of a CCR landfill or CCR surface impoundment, who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and who has sufficient training and experience in groundwater hydrology and related fields as may be demonstrated by state registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional judgment regarding the technical information for which a certification under this subpart is necessary.

Many comments were received on the definition. Some commenters agreed with the proposed definition, but most commenters argued that significant changes were needed. These changes included removing the requirement that the engineer be “independent,” adding the word “qualified,” and limiting the ability to make certifications to “licensed” professional engineers. Still other commenters felt that EPA should broaden the qualifications beyond a professional engineer or hydrologist, to include geologists, hydrogeologists, groundwater scientists or “other qualified environmental professionals” among the individuals able to certify regulatory demonstrations.

By far the issue receiving the most comment was whether the Agency should require a professional engineer to be “independent.” Commenters disagreed with EPA that the certification must be made by an independent registered professional engineer (*i.e.*, not an employee of the owner or operator of the CCR unit). Commenters argued that most utilities employ a number of professional engineers that typically possess the most relevant experience and knowledge about the unit, and that company-employed engineers and hydrologists were in a much better technical position to certify technical provisions of the rule were being met. Furthermore, commenters asserted that these professionals would be subject to the same state registration and licensing requirements as those not employed by the facility and would have an equally strong incentive to maintain their licenses in good standing as those that are independent of the utility. These commenters also pointed to several EPA rulemakings in which EPA allowed “qualified” professional engineers to make the kind of certifications contemplated by this rulemaking, without requiring that they be “independent.” Commenters also contended that state licensing and registration programs help to ensure that

all professionals exercise proper judgment or “independence” regarding the operation of CCR landfills and CCR surface impoundments. Similarly, commenters claimed that a professional engineer without the required expertise would refuse to make any certifications for which they were not qualified. Some commenters suggested that EPA provide some criteria requiring demonstrated experience and training. Commenters also took issue with the fact that the definition focused entirely on groundwater hydrology and failed to include training or experience in other areas that would also be necessary to effectively certify specific technical criteria of the rule (*e.g.*, structural integrity, composite liner design).

The definition EPA proposed for “independent registered professional engineer or hydrologist,” focused on three components that were intended to define the minimum qualifications necessary to independently verify that a specific technical standard was met and to provide sufficient objectivity to reduce the opportunity for abuse. These components were: (1) The individual was a scientist or engineer by academic training or education; (2) the individual was not an employee of the owner or operator of the CCR unit; and (3) the individual had sufficient training in groundwater hydrology or related fields. The proposed definition did not require the individual to be a licensed professional engineer or hydrologist; instead the Agency prohibited the individual providing the certification from being an employee of the owner or operator of the CCR unit, reasoning that this requirement would provide some degree of independent verification of facility practices.³⁷ The Agency stated that the availability of meaningful independent verification was critical to EPA’s ability to conclude that the performance standards laid out in the proposed rule would meet the RCRA section 4004 protectiveness standard.

In the course of developing this final rule, the Agency concluded that it needed to better define the connection between the technical requirements of the rule and the technical qualifications

³⁷ While the definition did not require the independent registered professional engineer or hydrologist to be licensed, the preamble did state that EPA expects that professionals in the field will have adequate incentive to provide an honest certification, given that the regulations require that the engineer not be an employee of the owner or operator of the CCR landfill or CCR surface impoundment, and that they operate under penalty of losing their license, implying that the professional was, in fact, licensed. This narrative and the title of independent registered professional engineer caused many commenters to assume that the certifiers indeed had to be licensed professional engineers. (See 75 FR 35194, June 21, 2010.)

an individual must possess to certify the demonstrations being made by the owner or operator of the CCR unit. In doing so, the Agency looked for direction in the following rules, the “Resource Conservation and Recovery Act (RCRA) Burden Reduction Initiative” (71 FR 16826, April 4, 2006) and the “Oil Pollution Prevention and Response; Non-Transportation-Related Onshore and Offshore Facilities rule (67 FR 47042, July 17, 2002). In both of these actions, the Agency had come to similar conclusions. First, that professional engineers, whether independent or employees of a facility, being professionals, will uphold the integrity of their profession and only certify documents that meet the prescribed regulatory requirements; and that the integrity of both the professional engineer and the professional oversight of boards licensing professional engineers are sufficient to prevent any abuses. (For an example see: 67 FR 47084, July 17, 2002.) And second, that in-house professional engineers may be the persons most familiar with the design and operation of the facility and that a restriction on in-house professional certifications might place an undue and unnecessary financial burden on owners or operators of facilities by forcing them to hire an outside engineer.

Reviewing these other regulatory actions and the Agency’s rationale for making its decisions, has led the Agency to a similar conclusion with regard to this rule—that it is unnecessary to require the individual making certifications under this rule to be “independent.” Thus the final rule does not prohibit an employee of the facility from making the certification, provided they are a professional engineer that is licensed by a state licensing board. The personal liability of the professional engineer provides strong support for both the requirement that certifications must be performed by licensed professional engineers, and for removing the requirement that the engineer be “independent.”

While other commenters argued that the word “independent” should be retained because an independent review and certification avoids any potential of conflict of interest, the Agency is convinced that an employee of a facility, who is a qualified professional engineer and who has been licensed by a state licensing board would be no more likely to be biased than a qualified professional engineer who is not an employee of the owner or operator. Moreover, it is not clear that an in-house engineer faces a greater economic temptation than an independent

engineer seeking to cultivate an ongoing relationship with a client. EPA has concluded that the programs established by state licensing boards provide sufficient guarantees that a professional engineer, regardless of whether he/she is "independent" of the facility, will give a fair technical review.

As an additional protection, the Agency has re-evaluated the performance standards throughout the final rule to ensure that the requirements are sufficiently objective and technically precise that a qualified professional engineer will be able to certify that they have been met.

The Agency agrees with concerns that a professional engineer may not be qualified to address all the varied aspects of CCR landfill and CCR surface impoundment design, and has amended the definition to clarify and strengthen the qualifications of the individual authorized to certify the technical demonstrations under the rule. In the proposed rule, the Agency did not require an independent registered professional engineer to be licensed, only that they be an engineer or hydrologist who had received a baccalaureate or post graduate degree in the natural sciences with training and experience in groundwater hydrology or a related field. While the term "independent registered professional engineer or hydrologist" conveyed to some commenters that the individual was in fact "licensed," the definition in the proposal did not require it. Furthermore, as noted by commenters, the proposed definition focused primarily on hydrogeology expertise and did not include training and experience qualifications necessary to accurately certify some of the requirements being promulgated in the rule, *e.g.*, landfill and surface impoundment design and construction, structural stability assessments, analysis of unstable areas. In reviewing this proposed requirement, the Agency has determined that specifying exact qualifications and or experience for the professional engineer is neither necessary nor practical, given the range of technical specifications that will require certification. EPA has therefore adopted a more succinct requirement focused on the professional engineer's qualifications to perform the task or certification.

In making this change, the Agency was again strongly influenced by the "Resource Conservation and Recovery Act (RCRA) Burden Reduction Initiative" rule. (See 71 FR 16826, April 4, 2006.) In that rule, EPA amended the majority of RCRA provisions requiring the certification of an "independent,

qualified, registered, professional engineer" to substitute the phrase, a "qualified professional engineer," reasoning that a requirement for a qualified professional engineer maintains the most important components of any certification requirement: (1) That the engineer be qualified to perform the task based on training and experience; and (2) that she or he be a professional engineer licensed to practice engineering under the title Professional Engineer which requires following a code of ethics with the potential of losing his/her license for negligence (see 71 FR 16868.)

In the "Burden Reduction Rule" the Agency concluded that a professional engineer is able to give fair and technical review because of the oversight programs established by the state licensing boards that will subject the professional engineer to penalties, including the loss of license and potential fines if certifications are provided when the facts do not warrant it. In fact, this personal liability of the professional engineer is one of the primary reasons that commenters to the "Burden Reduction Rule" supported the idea that RCRA certifications should only be done by licensed professional engineers (See 71 FR 16868.) Upon further analysis and reflection, the Agency sees no reason to deviate from the position EPA held in that rule. Despite some concerns raised by commenters that problems could occur if an owner or operator hires an engineering firm that is small, inexperienced, or operating outside of their past professional practice, the Agency continues to believe that with the protections afforded by the specific performance standards in this rule and the standards and ethics to which a qualified professional engineer is subject, situations in which an unqualified or un-licensed engineer certifies a technical demonstration will be avoided. Furthermore, it is important to reiterate that state licensing boards can investigate complaints of negligence or incompetence on the part of professional engineers, and may impose fines and other disciplinary actions, such as cease-and-desist orders or license revocation. (See 71 FR 16868.) In light of the third party oversight provided by the state licensing boards in combination with the numerous recordkeeping and recording requirements established in this rule, the Agency is confident that abuses of the certification requirements will be minimal and that human health and the environment will be protected.

The Agency wants to make it clear that qualified professional engineers can

utilize a qualified team of professionals in performing the analyses that underlie these certifications. In most instances, EPA expects that the basis for certification by a qualified professional engineer will be the result of a team of professionals (*e.g.*, geologists, hydrologists, scientists and engineers) who have collectively worked together in order to provide the data and analyses necessary for the professional engineer to certify the specific demonstration.

The Agency is convinced that the change to the certification requirements to allow the use of in-house expertise will not compromise environmental safety. Professional engineers employed by a facility are more familiar with the facility's particular situation and are in a position to provide more on-site review and oversight of the activity being certified. To this end, the Agency is also requiring that the qualified professional engineer be licensed in the state in which the CCR unit is located. The Agency has made this decision for a number of reasons, but primarily because state licensing boards can provide the necessary oversight on the actions of the professional engineer and investigate complaints of negligence or incompetence as well as impose fines and other disciplinary actions such as cease-and-desist orders or license revocation. Oversight may not be as rigorous if the professional engineer is operating under a license issued from another state.

Finally, the Agency disagrees with comments that professional geologists or geoscientists should be added to the list of those professionals that have expertise and authority to certify compliance with certain RCRA subtitle D regulatory requirements. In developing this final rule, the Agency has re-considered the qualifications necessary to certify compliance with the technical requirements of the rule and is limiting compliance certifications to qualified professional engineers only. While some environmental professionals, *e.g.*, hydrologists, geologists may be qualified to make certain certifications, EPA is not convinced that hydrologists or geologists licensed by a state are held to the same standards as a professional engineer licensed by a state licensing board. For example, it is unclear that hydrologists or geologists are subject to the rigorous testing required by professional engineers or that state licensing boards can investigate complaints of negligence or incompetence. Further, professional engineers have licensing boards in all 50 states, a standard not achieved by other

professional disciplines. Consequently, hydrologists, geologists, or other professionals may only perform analyses that underlie the certification, but it is the responsibility of a qualified professional engineer to make the actual certification.

D. State and Public Notifications of Certifications

To address concerns about the absence of adequate regulatory oversight under subtitle D, EPA proposed to require state and public notifications of the third party certifications, as well as other information documenting the decisions made or actions taken by the owner or operator to comply with the technical criteria in the rule. As stated in the proposal and reiterated here, the Agency cannot conclude that the regulations promulgated in this rule will ensure there is no reasonable probability of adverse effects on health or the environment unless there is a mechanism for states and citizens, as the entities responsible for enforcing the rule, to effectively monitor or oversee its implementation. Mandated documentation and transparency of the owner or operator's actions to comply with the rule provides this mechanism, and will help to minimize the potential for abuse. The proposal specified that the documentation of how the various technical standards had been met were to be placed in the facility's operating record, along with notification to the appropriate state authority. Additionally, EPA proposed to require the owner or operator to maintain a Web site available to the public that would also provide access to this documentation. EPA proposed that owners or operators post notices and relevant information on the internet site with a link clearly identified as being a link to notifications, reports, and demonstrations required under the regulations. While EPA recognized that the internet is currently the most widely accessible means for gathering and disseminating information, the Agency also solicited comments regarding alternative methods to provide notifications to the public and the states. The Agency also solicited comment on whether to require the establishment of a publicly accessible internet site to provide regulatory information to the public and the states, including whether there could be homeland security implications associated with internet posting of information, and whether the posting would duplicate information that is already available to the public through the state.

In response to most of these proposals, the Agency received little comment. Significant comment, however, was received on the publicly accessible internet site. Commenters argued that absent specific statutory authorization, it was inappropriate for EPA to delegate a regulatory oversight function to the regulated community by requiring the creation of a Web site and posting of regulatory compliance information. Commenters identified at least three substantial problems associated with "outsourcing information management responsibilities" to CCR facilities. First, commenters argued that EPA lacked the authority to impose such a requirement. Specifically, the commenters alleged that no statute authorizes EPA to demand that private parties act as an information clearinghouse for information pertaining to EPA's regulatory functions, either generally or in the specific context of CCR. To the contrary, the commenters argued, public information access statutes, such as the Freedom of Information Act are predicated on an assumption that information held by the government is presumptively public, while information held by a private entity presumptively is not.

Second, some commenters were concerned that facilities would not post information the facility deems to be confidential (e.g., the structural stability of ash pond impoundments) and by attempting to outsource the information management role to industry, EPA effectively allows industry to make the initial determination as to confidentiality and places the burden on citizens and EPA to take action to compel disclosure.

Third, commenters were concerned that citizen groups would not accept an electric utility's self-reported information, regardless of the amount of effort the facility exerts to ensure the accuracy of the information, without a regulatory agency acting as the intermediary or providing some degree of oversight (e.g., EPA's Toxic Release Inventory, EPA's Biennial Report of hazardous waste facilities). By requiring citizen groups to obtain their information from industry instead of a regulator, the commenters argued that EPA is inviting conflict as to the adequacy of data and the sufficiency of the utilities' responses to citizen groups' requests for clarification or additional information. The fact that the industry has provided information to a federal agency, subject to criminal penalties for providing false information, provides a useful public assurance of the integrity of the information.

Other commenters stated that the proposed requirement to maintain a Web site was excessive, and generated a regulatory burden upon companies that serves no useful function. Commenters urged that the same purpose could be served simply through making the certification of the registered professional engineer available on the Web site. Other commenters argued that internet posting of information on a surface impoundment's construction raised homeland security issues. These commenters alleged that the information "can be extremely sensitive and may contain information that could be used by certain individuals with an intent to destroy a dam (e.g., engineering information on the structure's foundation, detailed information on physical and engineering properties, the basis for the structure hazard classification, slope stability information, etc.)."

Finally, some commenters offered an alternative to the requirement to establish and maintain a publicly accessible internet site. Under this alternative the information would be included in the owner or operator's operating record only, and persons with "legitimate interests in reviewing these data" could make a written request to the owner or operator or the permitting authority to obtain the information. The commenters alleged that this would also allow the owner, operator, and federal and state authorities to know the names and identities of all organizations requesting information on the facility, which would help protect against the misuse of these data.

EPA disagrees that RCRA section 4004(a) does not authorize EPA to require facilities to disclose all of the information required under these final rule provisions. Section 4004(a) delegates broad authority to EPA to establish criteria governing facilities' management of solid waste, requiring only that such criteria ensure that there will be no reasonable probability of adverse effects on health or the environment from the disposal of solid waste. The statute imposes no limits on the actions EPA may require facilities to perform to achieve that level of protection. Moreover, unlike other statutes, e.g., the Toxic Substances Control Act, or the Federal Insecticide, Rodenticide and Fungicide Act, RCRA contains neither provisions that grant facilities the right to withhold regulatory compliance information from the public, nor provisions that establish any reasonable expectation that such information will be kept confidential. To the contrary, section 7004 explicitly provides that "[p]ublic participation in

the . . . implementation, and enforcement of any regulation under this chapter shall be provided for, encouraged, and assisted by the Administrator.” 42 U.S.C. 6974(b). And in fact, this kind of information would routinely be publically available under the permitting process for hazardous waste facilities. Accordingly, RCRA provides more than ample authority to support these requirements.

As repeatedly discussed throughout this preamble, under section 4004(a) EPA must be able to demonstrate, based on the record available at the time the rule is promulgated that the final rule provisions will achieve the statutory standard. EPA explained in the proposal that a key component of EPA’s support for determining that the rule achieves the statutory standard is the existence of a mechanism for states and citizens to monitor the situation, such as when groundwater monitoring shows evidence of potential contamination, so that they can determine when intervention is appropriate. The existence of effective oversight measures provides critical support for the statutory finding, particularly with respect to some of the more flexible alternatives EPA has adopted in certain of the technical standards in response to commenters’ requests for greater flexibility. These “transparency” requirements serve as a key component by ensuring that the entities primarily responsible for enforcing the requirements have access to the information necessary to determine whether enforcement is warranted. Unlike a federal or state regulatory authority, private citizens cannot access a private facility to conduct inspections. While EPA encourages states to adopt and implement a CCR regulatory program, and seek EPA’s approval of it via a state SWMP, EPA cannot require it. The final rule therefore must establish oversight mechanisms that will function effectively even in the absence of a state regulatory authority.

Such notifications will also reduce the incentives for owners or operators to abuse the rule’s self-implementing requirements, and can improve compliance. Indeed, the public disclosure of information is an increasingly common and important regulatory tool, as evidenced by the 2010 guidance issued by the Office of Management and Budget (OMB), with principles to assist agencies in using information disclosure to achieve regulatory objectives.

Thus, even if the commenters were correct that there exists a general “presumption” that information held by private entities need not be made

publically available, that presumption can be, and has been, effectively rebutted by the facts at hand.

None of the alternatives offered by the commenters would fulfill these same objectives. For example, simply making the certification of the qualified professional engineer available on the Web site without the underlying support information fails to provide the same incentives because no one could evaluate the accuracy of that certification. This alternative could also present the same concerns raised in comments on other sections of the rule, *i.e.*, that such a requirement could place the engineer at great risk of being subject to lawsuits. Requiring persons with “legitimate interests in reviewing these data” to request the data from the owner or operator also fails to provide an effective guarantee, as facilities that have failed to comply will have a strong incentive to withhold information documenting their non-compliance, however “legitimate” the request. And as noted, the absence of a guaranteed state permitting program means that requiring citizens to request information from such entities is also not a viable alternative. Given the absence of a guaranteed regulatory authority, EPA also disagrees that posting such information on a company internet site is necessarily duplicative, particularly in those states that have no regulatory program for controlling CCR. In addition, state requirements, whether pursuant to permits or other regulatory mechanisms, may not necessarily correspond to the requirements of this rule.

EPA acknowledges that parties may be suspicious of information self-reported by regulated entities. However, it is important to remember that facilities that provide information in compliance with these regulation remain subject to the penalties for providing false information under 18 U.S.C. 1001, even though the information will not be submitted to EPA. For example, the Tenth Circuit has held that federal jurisdiction lies under 18 U.S.C. 1001 when a defendant has submitted false information to a state delegated to enforce a federal environmental statute. *United States v. Wright*, 988 F.2d 1036 (10th Cir. 1993) (defendant submitted false monitoring reports required by the Safe Drinking Water Act to Oklahoma officials). This is consistent with rulings in other areas that the false statement need not be made directly to the federal government. *United States v. Uni Oil Co.*, 646 F.2d 946, 954–55 (9th Cir. 1981); *see also United States v. Patullo*, 709 F.2d 1178, 1180 (7th Cir. 1983); *United States v.*

Ross, 77 F.3d 1525, 1544 (7th Cir. 1996) (“This court has repeatedly found the submission of a fraudulent statement to a private (or non-federal government) entity to be within the jurisdiction of a federal agency where the agency has given funding to the entity and fraudulent statements cause the entity to utilize the funds improperly.”). As commenters recognized, the potential for criminal penalties under 18 U.S.C. 1001 provides a significant guarantee, as well as a strong incentive for compliance.

EPA also disagrees with the comments raising concern about the homeland security implications of posting information on a CCR surface impoundment’s construction, as it relates to structural stability. Much of the information relevant to an impoundment’s structural stability is currently available through Google Earth or through EPA’s Web site. For example, EPA’s Web site currently provides access to all of the information from the responses to EPA’s original 104(e) information requires and the information obtained through the CCR Assessment Program. This information can be accessed at the following pages: <http://www.epa.gov/osw/nonhaz/industrial/special/fossil/surveys/index.htm>, <http://www.epa.gov/osw/nonhaz/industrial/special/fossil/surveys2/index.htm>, and <http://www.epa.gov/osw/nonhaz/industrial/special/fossil/ccrs-fs/index.htm>. Moreover, the Department of Homeland Security has cleared both the internet posting of all of the information currently on EPA’s Web site, as well as, in general, information on the design, hydraulic parameters, volume of contained liquids and solids, and hazard rating of all major CCR surface impoundments across the U.S.

VI. Development of the Final Rule— Technical Requirements

A. Applicability

EPA proposed general provisions to identify those solid waste disposal units subject to the proposed RCRA subpart D requirements (*i.e.*, CCR landfills and CCR surface impoundments as defined under proposed § 257.40(b)). The applicability section also identified three of the existing subpart A criteria that would continue to apply to these facilities: § 257.3–1 *Floodplains*, § 257.3–2 *Endangered Species*, and § 257.3–3 *Surface Water*. Consistent with RCRA section 4004(c), EPA specified an effective date of 180 days after publication of the final rule.

The Agency received numerous comments on this part of the rule. In

general, commenters were concerned with three specific areas. First, commenters requested additional clarification as to the specific sources of CCR that would be subject to the requirements of the rule, *i.e.*, CCR generated by the electric utilities and independent power producers. Second, commenters requested clarification on the applicability of the proposed regulations to MSWLFs disposing of CCR and third, the definition and status of “uniquely associated wastes.” Uniquely associated wastes are addressed in Unit XIII of this preamble. EPA also received numerous comments regarding the proposal to apply the rule to “inactive” CCR surface impoundments that had not completed closure prior to the effective date of the rule.

EPA is finalizing minimum national criteria that apply to owners and operators of new and existing CCR landfills and CCR surface impoundments, including any lateral expansions of these units that dispose, or otherwise conduct solid waste management of CCR generated from the combustion of coal at electric utilities and independent power producers. The rule applies only to CCR units at “active” electric utilities and independent power producers, *i.e.*, those that generate electricity, regardless of the fuel currently used to produce electricity. However, disposal units at facilities that are “closed”—*i.e.*, the entire facility has been permanently taken out of service and no longer produces electricity—are outside of the scope of this rule.

Unless otherwise provided, the rule applies to CCR units located both on-site and off-site of the electric utility or independent power producer.

1. CCR Generated by Non-Utility Boilers

The requirements of this rule do not apply to wastes, including fly ash, bottom ash, boiler slag, and FGD materials generated at facilities that are not part of the electric power sector or an independent power producer and that use coal as the fuel in non-utility boilers, such as manufacturing facilities, universities, and hospitals. Industries that primarily burn coal to generate power for their own purposes (*i.e.*, non-utilities), also known as combined heat and power (CHP) plants, are primarily engaged in business activities, such as agriculture, mining, manufacturing, transportation, and education. The electricity that they generate is mainly for their own use, but any excess may be sold in the wholesale market. According to the Energy Information Administration (EIA), CHPs produced

less than one percent of the total electricity generated from coal combustion in 2013 and, similarly, burned less than one percent of the total coal consumed for electricity generation or less than 5 million tons (<http://www.eia.gov/electricity/data.cfm>).

EPA never proposed to include these wastes in the rule because EPA lacked critical data from these facilities that would allow us to address key Beville criteria (see 75 FR 35165). These other industries, and the manufacturing industries in particular, generate other types of wastes which are likely to be mixed or co-managed with the CCR at least at some facilities. As a result, the chemical compositions of the co-managed wastes are likely to be fundamentally different from the chemical composition of CCR generated by electric utilities or independent power producers. In addition, EPA noted that insufficient information was available on non-utility boilers burning coal to determine whether a regulatory flexibility analysis would be required under the Regulatory Flexibility Act, and to conduct one if it is necessary. Without such data, we were unable to fully assess CCR wastes from non-utility operations and indicated that we would decide on an appropriate course of action for these wastes after completing this rulemaking (see 75 FR 35129).

Several commenters stated that EPA’s decision to propose limiting the scope of the rule only to CCR generated by the electric power sector (electric utilities and independent power producers) was arbitrary. These commenters claimed that CCR generated by the electric power sector and CCR generated by non-utilities are generally comparable in physical and chemical composition and are typically managed similarly. As a result, these commenters suggested that EPA amend the applicability of the rule to subject all facilities that generate CCR to the same disposal requirements. EPA also received comments maintaining that important differences exist between CCR generated by electric power sector facilities and non-utility facilities, and that supported EPA’s proposed decision to exclude CCR generated by non-utilities from the rule. Differences identified by the commenters included waste management issues (*e.g.*, mixing and subsequent co-management of non-utility CCR and other industrial wastes generated by non-utilities), CCR generation rates, CCR management unit design, and CCR management unit operation. In response to our request for additional information, a few commenters provided either waste characterization data for non-utility CCR

or information on alleged damage cases involving non-utility CCR.

Based on the proposed rule, EPA cannot include these facilities in this final rule, even if the Agency had concluded that it had received the necessary information from commenters. EPA specifically stated its intention to exclude them, and clearly stated that it had not assessed the operations. (See 75 FR 35166.) The Agency provided no indication of any intention to include such facilities, and did not solicit comment on such an option. Moreover, under the Administrative Procedure Act, the public must be given the opportunity to comment on not only the information that would support such an action, but also EPA’s evaluation of that information, and the reasoning behind the Agency’s decision. And with respect to this subset of facilities, no such opportunity has been presented. EPA will consider the information provided by commenters at a future point, and will determine whether the information is sufficient to address key Beville criteria and to decide on the appropriate regulatory scheme for disposal of CCR generated by non-utilities. Accordingly, this rule does not apply to owners and operators of landfills and surface impoundments in which CCR are disposed that were generated by non-utility boilers burning coal.

2. CCR Generated Primarily From the Combustion of Fuels Other Than Coal

These requirements also do not apply to fly ash, bottom ash, boiler slag, and flue gas desulfurization materials, generated primarily from the combustion of fuels (including other fossil fuels) other than coal, for the purpose of generating electricity unless the coal comprises more than fifty percent (50%) of the fuel burned on a total heat input or mass input basis, whichever results in the greater mass feed rate of coal (see § 266.112). Fuel mixtures that contain less than 50% coal are not considered to be CCR, but other fossil fuel wastes. Other fossil fuels that are typically co-combusted with coal are oil and natural gas. In the May 22, 2000 Regulatory Determination, EPA determined that it is not appropriate to establish national regulations applicable to oil combustion wastes (OCW) because: (1) We found in most cases that OCW, whether managed alone or co-managed, are rarely characteristically hazardous; (2) we have not identified any beneficial uses that are likely to present significant risks to human health or the environment; (3) we identified no significant ecological risks posed by

land disposal of OCW; (4) we identified only one documented damage case involving OCW in combination with coal combustion wastes, and it did not affect human receptors; and (5) except for two unlined surface impoundments, we have not identified any significant risks to human health and the environment associated with any waste management practices. Similarly, EPA determined that regulating natural gas combustion wastes is not warranted because the burning of natural gas produces virtually no solid waste. Therefore, the Agency has determined that regulations for wastes generated primarily from the combustion of fuels (including other fossil fuels) other than coal are not warranted unless the fuel mixture consists primarily of coal.

3. Placement of CCR in Minefilling Operations

Consistent with the approach in the proposed rule, this rule does not apply to CCR placed in active or abandoned underground or surface coal mines. The U. S. Department of Interior (DOI) and EPA will address the management of CCR in minefills in a separate regulatory action(s). EPA will work with the OSM to develop effective federal regulations to ensure that the placement of coal combustion residuals in minefill operations is adequately controlled. In doing so, EPA and OSM will consider the recommendations of the National Research Council (NRC), which, at the direction of Congress, studied the health, safety, and environmental risks associated with the placement of CCR in active and abandoned coal mines in all major U.S. coal basins. The NRC published its findings on March 1, 2006, in a report entitled "Managing Coal Combustion Residues (CCR) in Mines," which is available at <http://books.nap.edu/openbook.php?isbn=0309100496>.

The report concluded that the "placement of CCR in mines as part of coal mine reclamation may be an appropriate option for the disposal of this material. In such situations, however, an integrated process of CCR characterization, site characterization, management and engineering design of placement activities, and design and implementation of monitoring is required to reduce the risk of contamination moving from the mine site to the ambient environment." The NRC report recommended that enforceable federal standards be established for the disposal of CCR in minefills to ensure that states have specific authority and that states implement adequate safeguards. The NRC Committee on Mine Placement of

Coal Combustion Wastes also stated that OSM and its SMCRA state partners should take the lead in developing new national standards for CCR use in mines because the framework is in place to deal with mine-related issues.

Consistent with the recommendations of the National Academy of Sciences, EPA anticipates that the U.S. Department of the Interior (DOI) will take the lead in developing these regulations. EPA will work closely with DOI throughout that process.

4. Municipal Solid Waste Landfills

The issue receiving the majority of comment in this section focused on the applicability of the rule to MSWLFs accepting CCR. The vast majority of commenters on this issue requested that EPA clarify that permitted MSWLFs, receiving CCR as daily cover or for disposal were not covered by the rule.

While most CCR is currently disposed of at electric utility owned CCR landfills or surface impoundments, there is no prohibition against disposing of CCR in state-permitted MSWLFs. However, many commenters interpreted the proposed CCR subtitle D regulations to apply to a state permitted MSWLF disposing of CCR, which as a consequence would be subject to the additional burden of posting documentation to a Web site, having a professional engineer review certification, etc. (See 75 FR 35210, where the preamble states that under a subtitle D regulation, regulated CCR wastes shipped off-site for disposal would have to be sent to facilities that meet the standards above.) Commenters argued that since MSWLFs were never mentioned in the proposed rule, that it should be made clear that the rule did not apply to these facilities. Commenters further contended that since the requirements for CCR landfills were directly modeled from the MSWLF requirements found at 40 CFR part 258, disposal in MSWLFs would be protective of human health and the environment. Commenters also contended that a benefit of MSWLFs would be their ability to provide additional capacity for the disposal of CCR as utilities seek to close, upgrade, or develop their own compliant CCR disposal sites.

EPA recognizes that there are MSWLFs that either accept CCR for disposal, use CCR for as daily cover, or both. Since the proposed and final RCRA subtitle D standards for CCR landfills are modeled after the standards for MSWLFs found at 40 CFR part 258, EPA has concluded that disposal of CCR in MSWLFs is as protective as disposal in a CCR landfill and that permitted

MSWLFs are not subject to the requirements of this rule. Like the MSWLF requirements, the CCR technical criteria require new units to have composite liners or their equivalent, and all units are subject to location restrictions, run-on and run-off controls, fugitive dust controls, groundwater monitoring and corrective action, closure and post-closure care requirements.³⁸

While the MSWLF fugitive dust criteria (air criteria) are not as specific as those in this rule, § 258.4(a) states that owners or operators of all MSWLFs must ensure that the units not violate any applicable requirements developed under a State Implementation Plan (SIP) approved or promulgated by the Administrator pursuant to section 110 of the Clean Air Act, as amended. It is expected that states will impose additional requirements to address fugitive dusts, of the sort codified in Illinois' 415 ILCS 5/9(a)(2012)³⁹ and enforced by the state (see *People of the State of Illinois v. KCBX Terminals Company*, Injunction no. 2013CH24788 in the Circuit Court of Cook County, Illinois. Moreover, if used as a daily cover, § 258.21 requires that the alternative cover (*i.e.*, CCR) control disease, vectors, odors, blowing litter, and scavenging without presenting a threat to human health and the environment.

The Agency is not requiring MSWLFs that receive CCR for disposal or for use as daily cover to modify their groundwater monitoring programs to comply with the rule; however the Agency expects that State Directors will require MSWLFs to modify their MSWLF permits to address the addition of CCR to the unit as it relates to groundwater monitoring and corrective action. Section 258.54(a)(2) allows for the Director of an approved state to establish an alternative list of inorganic indicator parameters for a MSWLF unit if the alternative parameters provide a reliable indication of inorganic releases

³⁸ One significant difference however is that MSWLFs are required to have financial assurance, a requirement not applicable to CCR under the subtitle D requirements.

³⁹ "No person shall (a) Cause or threaten or allow the discharge or emission of any contaminant into the environment in any state so as to cause or tend to cause air pollution in Illinois, either alone or in combination with contaminants from other sources, or so as to violate regulations or standards adopted by the Board under this Act; (b) Construct, install or operate any equipment, facility, vehicle, vessel, or aircraft capable of causing or contributing to air pollution or designed to prevent air pollution, of any type designated by Board regulations, (1) without a permit granted by the Agency unless otherwise exempt by this Act or Board regulations; or (2) in violation of any conditions imposed by such permit."

from the MSWLF unit to the groundwater (*i.e.*, as would be the case if CCR was disposed in the MSWLF unit). In determining alternative parameters, the Director shall consider, among other things: (1) The types, quantities, and concentrations in wastes managed at the MSWLF unit; (2) the mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the MSWLF unit; and (3) the detectability of indicator parameters, waste constituents, and reaction products in the groundwater. In situations where the MSWLF unit is receiving CCR for disposal and/or daily cover, EPA expects the controlled management of CCR in these units. Specifically, EPA expects State Directors to utilize the provisions in § 258.54(a)(2) to revise the detection monitoring constituents to include those constituents being promulgated in this rule under § 257.90. These detection monitoring constituents or inorganic indicator parameters are: boron, calcium, chloride, fluoride, pH, sulfate and total dissolved solids (TDS). These inorganic indicator parameters are known to be leading indicators of releases of contaminants associated with CCR and the Agency strongly recommends that State Directors add these constituents to the list of indicator parameters to be monitored during detection monitoring of groundwater if and when a MSWLF decides to accept CCR.

The Agency has concluded that CCR can readily be handled in permitted MSWLFs provided that they are evaluated for waste compatibility and placement as required under the part 258 requirements. Furthermore, consistent with the recordkeeping requirements in § 258.29, the Agency further expects State Directors to encourage MSWLF units receiving CCR after the effective date of this rule to do so pursuant to a “CCR acceptance plan” that is maintained in the facility operating record. This plan would assure that the MSWLF facility is aware of the physical and chemical characteristics of the waste received (*i.e.*, CCR) and handles it with the additional precautions necessary to avoid dust, maintain structural integrity, and avoid compromising the gas and leachate collection systems of the landfill so that human health and the environment are protected. While the Agency sees no need to impose duplicative requirements for MSWLFs that receive CCR for disposal or daily cover; development of these acceptance plans as well as a revised list of

groundwater detection monitoring constituents will help ensure that CCR is being managed in the most protective manner consistent with the Part 258 requirements.

5. Inactive CCR Surface Impoundments

The final rule also applies to “inactive” CCR surface impoundments at any active electric utilities or independent power producers, regardless of the fuel currently being used to produce electricity; *i.e.*, surface impoundments at any active electric utility or independent power producer that have ceased receiving CCR or otherwise actively managing CCR. While it is true that EPA exempted inactive units from the part 258 requirements in 1990, the original subtitle D regulations at 40 CFR part 257 (which are currently applicable to CCR wastes) applied to “all solid waste disposal facilities and practices” except for eleven specifically enumerated exemptions (none of which are relevant). 40 CFR 257.1(c). See also, 40 CFR 257.1(a)(1)–(2). And as discussed in greater detail below, subtitle D of RCRA does not limit EPA’s authority to active units—that is, units that receive or otherwise manage wastes after the effective date of the regulations. EPA has documented several damage cases that have occurred due to inactive CCR surface impoundments, including the release of CCR and wastewater from an inactive CCR surface impoundment into the Dan River which occurred since publication of the CCR proposed rule. As discussed in the proposal, the risks associated with inactive CCR surface impoundments do not differ significantly from the risks associated with active CCR surface impoundments; much of the risk from these units is driven by the hydraulic head imposed by impounded units. These conditions remain present in both active and inactive units, which continue to impound liquid along with CCR. For all these reasons, the Agency has concluded that inactive CCR surface impoundments require regulatory oversight.

The sole exception is for “inactive” CCR surface impoundments that have completed dewatering and capping operations (in accordance with the capping requirements finalized in this rule) within three years of the publication of this rule. EPA considers these units to be analogous to inactive CCR landfills, which are not subject to the final rule. As noted, EPA’s risk assessment shows that the highest risks are associated with CCR surface impoundments due to the hydraulic head imposed by impounded water.

Dewatered CCR surface impoundments will no longer be subjected to hydraulic head so the risk of releases, including the risk that the unit will leach into the groundwater, would be no greater than those from CCR landfills. Similarly, the requirements of this rule do not apply to inactive CCR landfills—which are CCR landfills that do not accept waste after the effective date of the regulations. The Agency is not aware of any damage cases associated with inactive CCR landfills, and as noted, the risks of release from such units are significantly lower than CCR surface impoundments or active CCR landfills. In the absence of this type of evidence, and consistent with the proposal, the Agency has decided not to cover these units in this final rule.

Under both the subtitle C and subtitle D options, EPA proposed to regulate “inactive” CCR surface impoundments that had not completed closure prior to the effective date of the rule. EPA proposed that if any inactive CCR surface impoundment had not met the interim status closure requirements (*i.e.*, dewatered and capped) by the effective date of the rule, the unit would be subject to all of the requirements applicable to CCR surface impoundments. Under the subtitle C option, those requirements would have included compliance with the interim status and permitting regulations. Under subtitle D, such units would have been required to comply with all of the criteria applicable to CCR surface impoundments that continued to receive wastes, including groundwater monitoring, corrective action, and closure.

EPA acknowledged that this represented a departure from the Agency’s long-standing implementation of the regulatory program under subtitle C. While the statutory definition of “disposal” has been broadly interpreted to include passive leaking, historically EPA has construed the definition of “disposal” more narrowly for the purposes of implementing the subtitle C regulatory requirements. For examples see 43 FR 58984 (Dec. 18, 1978); and 45 FR 33074 (May 1980). Although in some situations, post-placement management has been considered to be disposal triggering RCRA subtitle C regulatory requirements, *e.g.*, dredging of impoundments or management of leachate, EPA has generally interpreted the statute to require a permit only if a facility treats, stores, or actively disposes of the waste after the effective date of its designation as a hazardous waste. EPA explained that relying on a broader interpretation was appropriate in this instance given that the

substantial risks associated with currently operating CCR surface impoundments, *i.e.*, the potential for leachate and other releases to contaminate groundwater and the potential for catastrophic releases from structural failures, were not measurably different than the risks associated with “inactive” CCR surface impoundments that continued to impound liquid, even though the facility had ceased to place additional wastes in the unit. EPA noted as well that the risks are primarily driven by the older existing units, which are generally unlined.

In the section of the preamble discussing the subtitle D option, EPA did not expressly highlight the application of the rule to inactive CCR surface impoundments, but generally explained that EPA’s approach to developing the proposed subtitle D requirements for surface impoundments (which are not addressed by the part 258 regulations that served as the model for the proposed landfill requirements) was to seek to be consistent with the technical requirements developed under the subtitle C option. (See 75 FR 35193.) (“In addition, EPA considered that many of the technical requirements that EPA developed to specifically address the risks from the disposal of CCR as part of the subtitle C alternative would be equally justified under a RCRA subtitle D regime . . . The factual record—*i.e.*, the risk analysis and the damage cases—supporting such requirements is the same, irrespective of the statutory authority under which the Agency is operating . . . Thus several of the provisions EPA is proposing under RCRA subtitle D either correspond to the provisions EPA is proposing to establish for RCRA subtitle C requirement. These provisions include the following regulatory provisions specific to CCR that EPA is proposing to establish: *Scope and applicability (i.e., who will be subject to the rule criteria/requirements)* . . .”) (emphasis added).

EPA received numerous comments on this aspect of the proposal. On the whole, the comments were focused on EPA’s legal authority under subtitle C to regulate inactive and closed units, as well as inactive and closed facilities. One group of commenters, however, specifically criticized the proposed subtitle D regulation on the grounds that it failed to address the risks from inactive CCR surface impoundments. The majority of commenters, however, argued that RCRA does not authorize EPA to regulate inactive or closed surface impoundments. These commenters focused on two primary arguments: first, that RCRA’s definition of “disposal” cannot be interpreted to

include “passive migration” based on the plain language of the statute, and second, that such an interpretation conflicted with court decisions in several circuits, holding that under CERCLA “disposal” does not include passive leaking or the migration of contaminants.

In support of their first argument, commenters argued that the plain language of RCRA demonstrates that the requirements are “prospective in nature” and thus cannot be interpreted to apply to past activities, *i.e.*, the past disposals in inactive CCR units. They also argued that the absence of the word “leaching” from the definition of “disposal” clearly indicates that Congress did not intend to cover passive leaking or migration from CCR units. The commenters also selectively quoted portions of past EPA statements, claiming that these demonstrated that EPA had conclusively interpreted RCRA to preclude jurisdiction over inactive units and facilities. In particular, they pointed to EPA’s decision in 1980 not to require permits for closed or inactive facilities.

Commenters cited several cases to support their second claim. These include *Carson Harbor Vill. v. Unocal Corp.*, 270 F.3d 863 (9th Cir. 2001); *United States v. 150 Acres of Land*, 204 F.3d 698, 706 (2000); *ABB Industrial Systems v. Prime Technology*, 120 F.3d 351, 358 (2d Cir. 1997); *United States v. CMDG Realty Co.*, 96 F.3d 706, 711 (3rd Cir. 1996); *Joslyn Mfg. Co. v. Koppers Co.*, 40 F.3d 750, 762 (5th Cir. 1994); *Delaney v. Town of Carmel*, 55 F. Supp. 2d 237, 256 (S.D.N.Y. 1999); *see also Interfaith Cmty. Org. v. Honey-Well Intl Inc.*, 263 F. Supp. 2d 796, 846 n.10 (D.N.J. 2003). The commenters acknowledged that these cases were all decided under CERCLA, but claim that the cases are all equally dispositive with respect to RCRA’s definition of disposal because CERCLA specifically incorporates by reference RCRA’s statutory definition of disposal.

As an initial matter, it is important to correct certain misunderstandings contained throughout a number of the comments. First, EPA did propose to include inactive units under the subtitle D alternative. EPA clearly signaled its intent to cover the same universe of units and facilities covered under the subtitle C proposal. EPA did not include a corresponding discussion in its explanation of the subtitle D alternative because application of the criteria to inactive units did not represent such a significant departure from EPA’s past practice or interpretation. As discussed in more detail below, the original subtitle D regulations applied to all

existing disposal units. See 40 CFR 257.1(a)(1)–(2), (c) and 43 FR 4942–4943, 4944.

Second, several commenters criticized EPA’s purported proposal to cover both “closed” and “inactive” surface impoundments, using the terms interchangeably. These same commenters also refer to both “inactive facilities” and “inactive units.” These are all different concepts, and EPA clearly distinguished between them.

EPA proposed to regulate only “inactive” surface impoundments that had not completed closure of the surface impoundment before the effective date. “Inactive” surface impoundments are those that contain both CCR and water, but no longer receive additional wastes. By contrast, a “closed” surface impoundment would no longer contain water, although it may continue to contain CCR (or other wastes), and would be capped or otherwise maintained. There is little difference between the potential risks of an active and inactive surface impoundment; both can leak into groundwater, and both are subject to structural failures that release the wastes into the environment, including catastrophic failures leading to massive releases that threaten both human health and the environment. This is clearly demonstrated by the recent spill in the Dan River in North Carolina, which occurred as the result of a structural failure at an inactive surface impoundment. Similarly, as demonstrated by the discovery of additional damage cases upon the recent installation of groundwater monitoring systems at existing CCR surface impoundments in Michigan and Illinois, many existing CCR surface impoundments are currently leaking, albeit currently undetected. These are the risks the disposal rule specifically seeks to address, and there is no logical basis for distinguishing between units that present the same risks.

EPA did not propose to require “closed” surface impoundments to “reclose.” Nor did EPA intend, as the same commenters claim, that “literally hundreds of previously closed . . . surface impoundments—many of which were properly closed decades ago under state solid waste programs, have changed owners, and now have structures built on top of them—would be considered active CCR units.” Accordingly, the final rule does not impose any requirements on any CCR surface impoundments that have in fact “closed” before the rule’s effective date—*i.e.*, those that no longer contain water and can no longer impound liquid.

Further, EPA never proposed that the rule would apply to inactive facilities. The proposal was clear that the regulations would apply to active facilities—*i.e.*, those that continue to generate electricity for distribution to the public, and those that continue to manage CCR. Consistent with that proposal, the final rule applies only to inactive surface impoundments at active electric utilities, *i.e.*, facilities that are actively generating electricity irrespective of the fuel used.

Finally, some comments focused on issues that were specific to the plain language of subtitle C provisions. While most of the issues the commenters raised relate equally to EPA's authority under both subtitles C and D, because the final rule establishes standards under subtitle D of RCRA, EPA has not addressed comments that are purely relevant or applicable to the extent of EPA's authority under subtitle C.

a. Plain Language of RCRA and EPA's Past Interpretations

Under both subtitle C and subtitle D, EPA's authority to regulate "inactive" units primarily stems from the agency's authority to regulate "disposal." The term is defined once in RCRA and applies to both subtitles C and D. Moreover, the definition explicitly includes "leaking" and "placing of any solid waste . . . into or on any land so that such [waste] or any constituent thereof may enter the environment . . . or be discharged into any waters, including groundwaters." 42 U.S.C. 6903(3).

Commenters focused on the past statements that EPA cited in the proposal in acknowledging that the Agency was proposing to revise its interpretation for this rulemaking. In general, the comments misconstrue the significance of these past statements. The cited passages merely explain that the *permitting requirements* in subtitle C were written to be "prospective in nature" and as a consequence, EPA has chosen to interpret "disposal" more narrowly *in that context*. Thus EPA's historic interpretation under subtitle C was not based on an interpretation that the plain language of RCRA's definition of "disposal" precluded reaching inactive units, but on a determination that a narrower interpretation would be reasonable in light of specific language in sections 3004 and 3005, and the practical consequences of applying *these requirements* to inactive facilities.⁴⁰

⁴⁰ It is also clear that certain subtitle C requirements in fact do apply to inactive units, for example, section 3004(u) requires facilities to clean

None of EPA's past statements included any interpretation that "leaking" does not include leaking from an inactive disposal unit, or that the statutory definition of "disposal" cannot be interpreted to apply to the current consequences of past disposals. To the contrary, EPA was clear in the original 1978 proposed hazardous waste regulations that leaking from inactive disposal units constitutes "disposal" under RCRA.

Neither RCRA nor its legislative history discusses whether section 3004 standards for owners and operators of hazardous waste treatment, storage, or disposal facilities apply or were intended to apply to inactive facilities, *i.e.*, those facilities which have ceased receiving, treating, storing, and disposing of wastes prior to the effective date of the subtitle C regulations. "*This is an important issue, however, because some, and perhaps most, inactive facilities may still be 'disposing of waste' within the meaning of that term in Section 1004(3) of RCRA. 'Disposal' includes: the discharge, dumping, spilling, leaking, . . . of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including groundwaters. Many inactive facilities may well be leaking solid or hazardous waste into groundwater and thus be 'disposing' under RCRA.*" 43 FR 58984 (emphasis added).

Note as well that EPA declined to impose requirements on "inactive facilities" not "inactive units at active facilities," which are the entities covered in this final CCR rule. Further, the complications discussed in 1978 were specific to inactive or closed facilities: the concern that the present owner of the land on which an inactive site was located might have no connection (other than present ownership of the land) with the prior disposal activities. *Id.* These considerations are not relevant to inactive CCR surface impoundments at active electric utilities.

EPA further clarified this position in the 1980 final hazardous waste rule, explaining that, while the Agency did not generally intend to regulate those portions of facilities that had closed before the effective date, there were exceptions to this, and that in individual cases, inactive portions of a facility—or in other words, inactive units, might be regulated.

up releases from inactive units located on the facility site.

[O]wners and operators which continue to operate after the effective date of the regulations must ensure that portions of facilities closed before the effective date of these rules do not interfere with the monitoring or control of active portions. This requirement regulates the facility which operates under the RCRA regulations, although it may require the owner or operator before he receives a permit, or, as a permit condition, to take certain measures on portions of his facility closed before the effective date of these regulations. 45 FR 33068. (See also 45 FR 33170.)

In other words, EPA was clear that its jurisdiction under RCRA extended to these portions of the facility but that the Agency had made a policy choice not to exert its regulatory jurisdiction as a general matter over inactive facilities, choosing instead to rely on section 7003 and CERCLA to address the risks and require clean-up of these sites. EPA has adopted a substantially similar approach here, requiring the current owner or operator of an active facility to address the risks associated with an inactive portion of the facility that could potentially interfere with the monitoring or control of the actively operating portion of the facility through leaking contaminants or other releases.

Similarly, in the 1980 final rules, EPA expressly declined to revise the regulatory definition of disposal to exclude accidental or unintentional releases. EPA noted that "[r]egardless of whether a discharge of hazardous waste is intentional or not, the human health and environmental effects are the same. Thus intentional and unintentional discharges are included in the definition of 'disposal.'" (See 45 FR 33068.) While EPA revised other provisions to clarify that a permit would not be required for accidental discharges, EPA was clear that such activities are properly considered to be "disposal."

By contrast, EPA's past implementation of subtitle D, following from the legislative history and the statutory language, consistently applied regulatory requirements equally to all facilities, without distinguishing between active and inactive or new and existing facilities.

Congress was clear that subtitle D was intended to specifically address the problem of abandoned leaking "open dumps" scattered across the country, "where frequently the use of the site for waste disposal is neither authorized nor supervised." H. Rep. No. 94-1491, p 37, 94th Cong., 2d Sess (1976). For example, the report described the consequences when "the City of Texarcana Arkansas/Texas, abandoned its six open dumps, in 1968" to support the need to require open dumps to upgrade or close.

Similarly, in describing the need for the legislation, the House report stated:

Disposal of solid wastes, including hazardous wastes, can have adverse environmental impacts in several ways. The following paragraphs discuss five different types of such impacts.

(i) Perhaps the most pernicious effect is the contamination of groundwater by leachate from land disposal of waste. About half of the U.S. domestic water supply is from underground water, and thus is potentially subject to contamination. Such contamination is particularly vexing because often it is discovered after the damage is done and because the contamination is very long lasting. Thus leachate from a landfill or dump may not show up for years, *maybe not even until after the landfill is closed.*

Id. at 89 (emphasis added).

Consequently, subtitle D of RCRA provides clear authority to address inactive or abandoned disposal sites. The relevant provisions of RCRA subtitle D do not distinguish between “active” and “inactive” disposal units. Nor do any of the relevant provisions tie jurisdiction to the receipt or disposal of waste after a specific date.

RCRA section 1004(14) defines an “open dump” as “any facility or site where solid waste is disposed of which is not a sanitary landfill which meets the criteria promulgated under section [4004] of this chapter and which is not a facility for disposal of hazardous waste.” 42 U.S.C. 6903(14) (emphasis added). Section 4004(a) delegates broad authority to EPA to determine the facilities that will be considered “open dumps,” without any requirement that the units or facilities be in operation. “[T]he Administrator shall promulgate regulations containing criteria for determining which facilities shall be classified as sanitary landfills and which shall be classified open dumps within the meaning of this chapter.” 42 U.S.C. 6944(a). Section 4005(a), which is titled, “Closing or upgrading of existing open dumps,” is also not limited in scope: “Upon promulgation of criteria under [1008(a)(3)] of this title, any solid waste management practice of disposal of solid waste or hazardous waste which constitutes the open dumping of solid or hazardous waste is prohibited, . . .” 42 U.S.C. 6945(a) (emphasis added). See also, section 4003(a)(3), requiring state plans to provide for the closing or upgrading of “all existing open dumps”). 42 U.S.C. 6943(a)(3) (emphasis added).

Consistent with the statutory provisions, EPA’s current subtitle D regulations at 40 CFR part 257 apply to “all solid waste disposal facilities and practices” whether active or inactive, and did not differentiate between new

and existing facilities.⁴¹ 40 CFR 257.1(c). See also, 40 CFR 257.1(a)(1)–(2). EPA was clear in both the proposed and final rules that the rules applied to all existing facilities: “These criteria for the classification of disposal facilities apply to all “solid waste” and “disposal” facilities, which are defined in the Act [in] (section 1004).” 43 FR 4942–4943, 4944. The final rule was equally clear: “These criteria apply to the full range of facilities and practices for “disposal” of “solid waste,” as those terms are defined in the Act.” 44 FR 53440. (See also 44 FR 53438.) The final rule describes eight categories of materials or activities that are excluded; inactive facilities or units are not among them. This stands in stark contrast to the hazardous waste regulations, which, as discussed, specifically exempted inactive facilities from the permitting and associated regulatory requirements.

b. Case Law on the Definition of Disposal

EPA also disagrees with the commenters’ second claim that regulating inactive surface impoundments would be inconsistent with case law in six circuits. The commenters are correct that some courts have held that the subsequent passive migration of contamination left on-site is insufficient to support liability against a *third party* that merely owned the property *under CERCLA*. But the commenters misconstrue this case law and fundamentally overstate its significance to the issue at hand. Of greater significance, however, is that federal courts have almost universally reached different conclusions under RCRA, holding that the statutory definition of disposal does include the passive migration of contamination from previously disposed of wastes.

As an initial matter, the issue decided by the courts in the cited CERCLA cases was narrower than the commenters allege; these cases generally focused on whether current or past owners of land contaminated by the activities of *other owners* were liable for passive migration that occurred during their ownership of the land. This is very different than the situation at hand, in which regulatory requirements are being imposed to address the existing and future contamination caused by the past and current activities of the current owner.

In addition, these decisions were largely predicated on language that is unique to CERCLA, rather than on a definitive reading of RCRA’s definition

of disposal. *See, e.g., United States v. CMDG Realty Co.*, supra at 712–717. For example, in *CMDG Realty*, the court found that passive migration was not disposal because Congress had clearly distinguished between “releases,” and “disposal,” defining the two terms differently and imposing liability on different parties for the two activities. *Id. Accord, Carson Harbor Village, supra*, at 880–885; *ABB Industrial Systems v. Prime Technology*, supra at 358.

Moreover, even under CERCLA courts have not universally reached the same conclusions on whether “passive migration” can be considered “disposal.” *See, e.g., Nurad, Inc. v. William E. Hooper & Sons Co.*, 966 F.2d 837, 844–46 (4th Cir. 1992) (concluding that because the definition of disposal includes “leaking,” prior owners are liable if they acquired a site with leaking barrels or underground storage tanks even though the prior owner’s actions are purely passive); *ABB Industrial Systems, Id.*, n.3 (expressly declining to decide whether passive migration could ever be considered “disposal”).

But in any event, courts have consistently interpreted RCRA to apply to passive migration. Two cases under RCRA are the most directly analogous to the current situation as they address the extent of EPA’s authority to regulate based on the statutory definition of “disposal”: *In re Consolidated Land Disposal Regulation Litigation*, 938 F.2d 1386 (D.C. Cir. 1991), and *United States v. Power Engineering Co.*, 10 F. Supp. 2d 1145 (D. Colo. 1998), *aff’d* 191 F.3d 1224 (10th Cir. 1999). In both cases, the court considered whether EPA could impose or enforce regulatory requirements to address passive migration under the interpretation that this constituted “disposal” under RCRA. And in both cases the court agreed that RCRA’s definition encompassed such activities.

The issue in *Consolidated Land Disposal* was whether EPA could require closed hazardous waste facilities to obtain a “post-closure” permit. 938 F.2d at 1388–1389. EPA had relied on the definition of disposal to support the regulation, concluding that a facility “at which hazardous wastes have been disposed by placement in or on the land” remains subject to both permitting and regulation because “such hazardous wastes or constituents may continue ‘leaking’ or ‘may enter the environment or be emitted . . . or discharged . . .’ into the environment.” *Id.* Similar to the commenters’ current arguments, the petitioners argued that under § 3005, a permit can only be required for “on-

⁴¹ The regulations establish eleven specifically enumerated exemptions, none of which are relevant to the units at issue.

going activities”—the treatment, storage, or disposal of waste at such facilities—not for the facility itself post-closure. The petitioners argued that linguistically, “disposal . . . is not a continuing activity but occurs anew each time waste is placed into or on land.” The D.C. Circuit summarily rejected the petitioners’ interpretation, holding that this “may be one way in which the word is used in ordinary language, but is not necessarily how it is used in the statute; the equation of “disposal” with “leaking,” which is a continuous phenomenon rather than a discrete event, is enough to blunt the sting of the petitioners’ point.” *Id.* This case is essentially dispositive of the issue, given the similarities between the requirement for a post-closure permit and the final requirements applicable to inactive CCR surface impoundments. Electric utilities retain ownership and control over these existing CCR units, just as hazardous waste facilities retain ownership and control over the closed units subject to post-closure permitting. In both situations, EPA requirements are designed to address both the existing and future risks of further “releases” or “leaking” from these units—*i.e.*, further disposal, as that term is defined in section 1004.

Similarly, in *Power Engineering* the court considered whether under section 3008 of RCRA, EPA could bring an action to compel the operator of a metal refinishing plant to comply with the state’s RCRA regulations relating to financial assurance.⁴² 10 F. Supp.2d at 1159. The defendants argued that since they were not currently disposing of waste, they were operating in compliance with state regulations and were exempt from financial assurance requirements. The court disagreed. It held that the use of the word “leaking” in the definition of “disposal” indicated that the leaching of hazardous waste into the groundwater constitutes the continuing disposal of hazardous waste. *Id.* at 1159–60 (“Because the definition of “disposal” includes the word “leaking,” disposal occurs not only when a solid waste or a hazardous waste is first deposited onto ground or into water, but also when such wastes migrate from their initial disposal location.”).

Courts in several circuits have also considered whether the passive migration of previously dumped waste constitutes a current or ongoing violation of RCRA, *i.e.*, illegal

“disposal,” under the citizen suit provisions of section 7002(a)(1)(A). Most have concluded that it does. *See, Scarlett & Associates v. Briarcliff Center Partners*, 2009 WL 3151089 (N.D. Ga. 2009) (deciding to “follow the majority rule” and holding that “the continued presence of migrating waste constitutes a continuing violation under the RCRA”); *Marrero Hernandez v. Esso Standard Oil Co.*, 597 F. Supp. 2d 272, 283 (D.P.R. 2009) (holding that unremediated, migrating contamination is not a wholly past violation); *Cameron v. Peach County, GA*, No. 5:02–CV–41–1 (CAR), 2004 WL 5520003 (M.D. Ga. 2004) (holding that the continued presence of illegal contamination that remains remedial constitutes a continuing violation, even though the acts of unlawful disposal occurred in the past); *California v. M&P Investments*, 308 F. Supp. 2d 1137, 1146–1147 (E.D. CA 2003) (Allowing RCRA 7002 claim of continuing violation to proceed on evidence that wastes “continue to exist unremediated” as a result of improper discharge that had ceased over 20 years prior to filing of suit); *Aurora National Bank v. TriStar Marketing*, 990 F. Supp. 1020, 1025 (N.D. Ill. 1998) (“Although subsection (a)(1)(A) does not permit a citizen suit for wholly past violations of the statute, the continued presence of illegally dumped materials generally constitutes a ‘continuing violation’ of the RCRA, which is cognizable under § 6972(a)(1)(A).”) (internal citation omitted); *City of Toledo v. Beazer Materials & Servs., Inc.*, 833 F. Supp. 646, 656 (N.D. Ohio 1993) (“[T]he disposal of wastes can constitute a continuing violation so long as no proper disposal procedures are put into effect or as long as the waste has not been cleaned up and the environmental effects remain remediable.”); *Gache v. Town of Harrison*, 813 F. Supp. 1037, 1041–42 (S.D.N.Y. 1993) (“The environmental harms do not stem from the act of dumping when waste materials slide off the dump truck but rather after they land and begin to seep into the ground, contaminating soil and water. So long as wastes remain in the landfill threatening to leach into the surrounding soil and water, a continuing violation sure may exist.”); *Acme Printing Ink Co. v. Menard, Inc.*, 812 F. Supp. 1498, 1512 (E.D. Wisc. 1992) (“RCRA includes in its broad definition of ‘disposal’ the continuous leaking of hazardous substances. . . . Accordingly, leaking of hazardous substances may constitute a continuous or intermittent violation of RCRA.”); *Fallowfield Dev. Corp. v. Strunk*, No.

89–8644, 1990 WL 52745 (E.D. Pa. 1990) (“If a person disposes of hazardous waste on a parcel of property, the hazardous waste remains in that property insidiously infecting the soil and groundwater aquifers. In other words, the violation continues until the proper disposal procedures are put into effect or the hazardous waste is cleaned up.”). It is particularly notable that these cases were all decided under subsection (A); in contrast to subsection (B), section 7002(a)(1)(A) does not include any reference to liability for past actions or for prior owners. *Compare*, 42 U.S.C. 6972(a)(1)(A) and (B). In reaching their holdings, therefore, the courts necessarily relied [solely] on the reach of the statutory definition of “disposal,” which is at the heart of EPA’s authority to regulate inactive CCR surface impoundments.

Courts have also addressed the limits of RCRA’s definition of “disposal” is in the context of an EPA action under RCRA section 7003. Section 7003 authorizes EPA to obtain injunctive relief for actions, including disposal that “may present an imminent and substantial endangerment to health or the environment.” 42 U.S.C. 6973(a). Several courts have evaluated whether an inactive disposal site, where no affirmative acts of disposal are occurring, constitute an “imminent and substantial endangerment” under this provision. Once again, most courts accept a definition of disposal that encompasses leaking or contaminant migration from previously discarded wastes. *See United States v. Price*, 523 F. Supp. 1055, 1071 (D.N.J. 1981), *aff’d United States v. Price*, 688 F.2d 204 (3rd Cir. 1982) (“There is no doubt, however, that [section 70003] authorizes the cleanup of a site, even a dormant one, if that action is necessary to abate a present threat to the public health or the environment.”) *citing* S. Rep. No. 96–848, 96th Cong., 2d Sess., at 11 (1980); H. R. Rep. 96–1016 (Part I), 96th Cong., 2nd Sess., at 21 reprinted in [1980] U.S. Code Cong. & Ad. News, 6119, 6124; *United States v. Waste Indus.*, 734 F.2d 159 (4th Cir. 1984) (Rejecting district court interpretation that disposal only includes “active human conduct” based on the inclusion of “leaking” in the definition of disposal, and interpreting the “movement of the waste after it has been placed in a state of repose [to be] encompassed in the broad definition of disposal”); *United States v. Diamond Shamrock Corp.*, 12 Env’tl. L. Rep. 20819, 20821 (N.D. Ohio May 29, 1981) (noting that “a disposal clearly requires no active human conduct”); *United States v. Conservation Chemical Co.*,

⁴² Under RCRA’s financial assurance regulations, owners and operators of hazardous waste facilities must document that they have sufficient resources to close their facilities and pay third-party claims that may arise.

619 F. Supp. 162, 200 (D. Mo. 1985) (“‘disposal’ occurs. . .when [wastes] migrate from their initial location”). See also S. Rep. 98–284, p 58 (98th Cong. 1st Sess.) (“The Environmental Protection Agency and the Department of Justice have used the equitable authority and [sic] granted in section 7003 to seek court orders directing those persons whose past or present acts have contributed to or are contributing to the existence of an imminent and substantial endangerment to abate such conditions. This has been an intended use of the section 7003 since 1976. . . . An [sic] evidenced by the definition of ‘disposal’ in section 1004(3), which includes the leaking of hazardous wastes, section 7003 has always provided the authority to require the abatement of present conditions of endangerment resulting from past disposal practices, whether intentional or unintentional.”).

While EPA continues to maintain that the statutory definition of disposal does in fact authorize regulation of inactive CCR surface impoundments, this is not the sole basis for that authority. Under section 1008(a)(3), EPA is authorized to establish criteria governing solid waste management, which includes the “storage” of solid waste. 42 U.S.C. 6904(28) and 6908(a)(3). RCRA’s definition of “storage” is limited to hazardous waste; under subtitle D, therefore, the definition Congress intended was the dictionary definition, which incontrovertibly covers the activities associated with continuing to maintain CCR in inactive surface impoundments. For example, Merriam Webster defines “storage” as “the state of being kept in a place when not being used” and “the act of putting something that is not being used in a place where it is available, where it can be kept safely, etc.”

Finally, consistent with the proposed rule and the final Regulatory Determination in Unit IV.B of this document, the final rule does not apply to CCR that is beneficially used.

6. Beneficial Use

The proposed rule generally distinguished between the disposal of CCR and the beneficial use of CCR. Disposal activities would be subject to regulation under one of two alternative regulatory schemes. But under either alternative, beneficial use would remain Bevill exempt and would not be subject to regulation. The proposal identified specific criteria that would be used to distinguish between legitimate beneficial uses of CCR and the disposal of CCR. These criteria were largely drawn from the approach contained in

the May 2000 Bevill Regulatory Determination. The criteria were:

—The material used must provide a functional benefit. For example, CCR in concrete increases the durability of concrete—and is more effective in combating degradation from salt water; synthetic gypsum serves exactly the same function in wallboard as mined gypsum, and meets all commercial specifications; CCR as a soil amendment adjusts the pH of soil to promote plant growth.

—The material substitutes for the use of a virgin material, conserving natural resources that would otherwise need to be obtained through practices, such as extraction. For example, the use of FGD gypsum in the manufacture of wallboard (drywall) decreases the need to mine natural gypsum, thereby conserving the natural resource and conserving energy that otherwise would be needed to mine natural gypsum; the use of fly ash in lieu of Portland cement reduces the need for cement. CCR used in road bed replace quarried aggregate or other industrial materials.

—Where relevant product specifications or regulatory standards are available, the materials meet those specifications, and where such specifications or standards have not been established, they are not being used in excess quantities. For example, when CCR is used as a commercial product, the amount of CCR used is controlled by product specifications, or the demands of the user. Fly ash used as a stabilized base course in highway construction is part of many engineering considerations, such as the ASTM C 593 test for compaction, the ASTM D 560 freezing and thawing test, and a seven day compressive strength above 2760 kPa (400 psi). If excessive volumes of CCR are used—*i.e.*, greater than were necessary for a specific project,—that could be grounds for a determination that the use is not beneficial, but rather is being disposed of. 75 FR 35162–35163.

EPA explained that in the case of agricultural uses, CCR would be expected to meet appropriate standards, constituent levels, prescribed total loads, application rates, etc. EPA has developed specific standards governing agricultural application of biosolids. While the management scenarios differ between biosludge application and the use of CCR as soil amendments, EPA stated that the Agency would consider application of CCR for agriculture uses not to be a legitimate beneficial use if they occurred at constituent levels or loading rates greater than EPA’s biosolids regulations allow. (75 FR 35162–35163, June 21, 2010)

EPA proposed to codify these criteria in the term, “beneficial use of coal combustion products (CCPs).” This definition stated that the beneficial use of CCPs was the use of CCPs that provides a functional benefit; replaces the use of an alternative material, conserving natural resources that would otherwise need to be obtained through practices such as extraction; and meets relevant product specifications and regulatory standards (where these are available). CCPs that are used in excess quantities (*e.g.*, the field-applications of FGD gypsum in amounts that exceed scientifically-supported quantities required for enhancing soil properties and/or crop yields), placed as fill in sand and gravel pits, or used in large scale fill projects, such as restructuring the landscape, are excluded from this definition. (75 FR 35129–35130, June 21, 2010).

Commenters generally supported the criteria in the proposal but raised concern that the criteria lacked specificity; some commenters stated that the criteria were those that states already considered in doing their beneficial use determination.

Commenters also suggested the use of a “no toxics” provision and others suggested that the criteria include a requirement that “environmental benefits” be achieved. A more general comment raised by several commenters was that the proposed criteria failed to establish any standard that ensured protection of human health and the environment. Finally, one commenter raised concern that EPA’s approach to beneficial use, and particularly to large scale fill operations, inappropriately assumed that these operations constituted the disposal of solid waste, which, the commenter claimed was inconsistent with a series of judicial decisions.

There are generally three critical issues in determining whether a material is regulated under RCRA subtitle D: whether the material is a “solid waste,” whether the activity constitutes “disposal,” and whether regulation of the disposal is warranted. Although there can be some overlap between these issues in that the same facts may be relevant to each of them, understanding the distinction between them is critical to understanding the final approach to the beneficial use of CCR adopted in this rulemaking.

In order to be subject to RCRA, the material must be a solid waste. The statute defines a solid waste as “any garbage, refuse . . . and other discarded material. . . .” 42 U.S.C. 6903(27). As EPA noted in the proposed rule, for some beneficial uses, CCR is a raw

material used as an ingredient in a manufacturing process that have never been “discarded,” and thus, would not be considered solid wastes under the existing RCRA regulations. For example, synthetic gypsum is a product of the FGD process at coal-fired power plants. In this case, the utility designs and operates its air pollution control devices to produce an optimal product, including the oxidation of the FGD to produce synthetic gypsum. In this example, after its production, the utility treats FGD as a valuable input into a production process, *i.e.*, as a product, rather than as something that is intended to be discarded. Wallboard plants are sited in close proximity to power plants for access to raw material, with a considerable investment involved. Thus, FGD gypsum used for wallboard manufacture is a product rather than a waste or discarded material. This use and similar uses of CCR that meet product specifications would not be regulated under the final rule.

However, this does not describe the majority of CCR, which are unambiguously wastes; after generation in the boiler, they are placed into landfills or surface impoundments. While they may subsequently be dredged from these units and reused, placement in a landfill or surface impoundment presents *prima facie* evidence of discard. At the time the material is placed into the unit, the utility is not treating the material as a valuable product or otherwise seeking to protect the material for use. Although the material may subsequently be reused if a buyer is found, the material is originally placed in the unit with the intent to let it remain in place if no buyer is found. The waste designation does not change merely because a material in a surface impoundment or landfill may in the future be beneficially reused.

For those materials that are “wastes” the second issue becomes relevant: whether the activities involved with the material constitutes “disposal” or “solid waste management.” The statute distinguishes between these activities and “use;” several activities are listed in the definitions of “disposal” and “solid waste management” and “use” is not among them. See 42 U.S.C. 6903(3) and (28). In general, commenters agreed that the three criteria in the proposal, and discussed above, would identify those activities that were properly considered to be legitimate beneficial uses rather than disposal. As several commenters noted, many state beneficial use programs rely on similar (or identical) criteria. And for encapsulated uses, EPA

agrees that these three criteria are sufficient to distinguish between the activities that will be regulated as disposal under this final rule and those that will be considered beneficial use. Accordingly, EPA has adopted them in the final definition of “beneficial use.”

But as EPA acknowledged in the proposal, the issues are more difficult with regard to unencapsulated uses. Because these uses involve the direct placement of CCR on the land, they are clearly more analogous to activities that have consistently been considered to be “disposal.” RCRA defines disposal to specifically include the “placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment . . .” 42 U.S.C. 6903(3). The issue is further complicated by the fact that there can be risks associated with placement of unencapsulated CCR on the land. As described in the proposal, CCR can leach toxic metals at levels of concern. The major risks associated with the placement of unencapsulated CCR on the land for beneficial use involved using large volumes of CCR to restructure the landscape, such as occurred at the Battlefield golf course, and placement in quarries and sand and gravel pits, such as occurred at the Gambrells, Maryland site. EPA acknowledged in the proposal that these types of operations would be subject to regulation as disposal, and so were not directly on point. However, because these damage cases involved the placement of unencapsulated CCR on the land, they raised questions regarding the safety of other uses of unencapsulated CCR that involved direct placement on the land. In addition, previous risk analyses do not address many of the use applications currently being implemented, and have not addressed the improved leachate characterization methods. EPA also noted that some scientific literature indicates that the uncontrolled (*i.e.*, excessive) application of CCR can lead to the potentially toxic accumulation of metals.⁴³

As noted, several commenters raised concern that EPA’s beneficial use criteria did not include any standard that ensured protection of human health

and the environment. EPA agrees that a criterion that accounted for the potential risks of the land placement of unencapsulated CCR would be an appropriate element to include in differentiating between disposal and beneficial use. RCRA’s definition of disposal includes some elements related to risk: specifically, the definition includes as a relevant concept that the waste or any constituent of concern “may enter the environment.” In this regard it is also relevant that not all disposal activities are regulated by EPA under subtitle D; rather, EPA only regulates those that present risks that exceed the Agency’s acceptable risk levels.

Building off of these concepts, the Agency has developed an additional criterion to address both the question of whether the activity is appropriately considered to be “disposal,” and the question of whether that “disposal” warrants regulation. Because uses that fail to meet the beneficial use criteria will be considered disposal and would therefore be considered disposal subject to the final regulation, this fourth criterion was designed to exclude uses likely to present the same risks as the management practices regulated under other sections of the final rule. Thus, the final criterion directly correlates to the practices and the risks that the disposal regulations are designed to address: the risks associated with the placement of large quantities of CCR in a single concentrated location, such as a CCR landfill, as documented in the 2014 risk assessment and the damage cases.

As discussed in more detail below, to be considered a “beneficial use,” prior to initiating an activity that involves placing unencapsulated CCR on the land in amounts greater than 12,400 tons, in non-roadway applications, the user must demonstrate that environmental releases to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use.

EPA acknowledges that there may be risks associated with uses that are below this threshold, depending on the characteristics of the CCR, the amount of material and the manner in which it is placed, and (perhaps most important) the site conditions. Consequently, all unencapsulated uses, including use in road construction and agriculture, should be conducted with care, according to appropriate management

⁴³ See, for example, “Effects of coal fly ash amended soils on trace element uptake in plant,” S.S. Brake, R.R. Jensen, and J.M. Mattox, Environmental Geology, November 7, 2003 available at <http://www.springerlink.com/content/3c5gaq2qrkr5unvp/fulltext.pdf>; See information regarding the Town of Pines Groundwater Plume at http://www.epa.gov/region5superfund/npl/sas_sites/INN000508071.htm. Also see additional information for this site at <http://www.epa.gov/region5/sites/pines/#updates>.

practices, and with appropriate characterization of the material and the site where the material will be placed. However, as discussed in the previous section, because the amounts and, in some cases, the manner in which the CCR are used are very different from the land disposal modeled in the risk assessment, EPA cannot extrapolate from the risk assessment to reach conclusions regarding the risks these uses may pose. And in the absence of such information, EPA cannot establish criteria to regulate these uses.

a. Final Definition of the Term “Beneficial Use of CCR”

The final beneficial use criteria are as follows: (1) The CCR must provide a functional benefit; (2) The CCR must substitute for the use of a virgin material, conserving natural resources that would otherwise need to be obtained through practices such as extraction; (3) the use of CCR must meet relevant product specifications, regulatory standards, or design standards when available, and when such standards are not available, CCR are not used in excess quantities; and (4) when unencapsulated use of CCR involves placement on the land of 12,400 tons or more in non-roadway applications, the user must demonstrate and keep records, and provide such documentation upon request, that environmental releases to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use. Any use that fails to comply with all of the relevant criteria will be considered to be disposal of CCR, subject to all of the requirements in the disposal regulations, and the user will be considered to be the owner or operator of a CCR disposal unit. Encapsulated uses need only comply with the first three criteria. Unencapsulated uses involving placement on the land of 12,400 tons or more in non-roadway applications that fail to meet all of the beneficial use criteria are considered a CCR unit. As previously noted, the first three criteria were discussed in the proposal and commenters generally supported these criteria, which establish flexible performance standards. As discussed above, the Agency has developed an additional criterion in response to comments, which generally reflects the issues discussed in the proposal. This additional criterion is designed to

address the environmental and human health concerns associated with large-scale, unencapsulated uses that have features similar to landfills. These four criteria are discussed in greater detail in the sections below. Any user of CCR that, at a later time, believes that there could be a health or environmental issue associated with their beneficial use should work with their state agency to address any potential issue.

As noted above, encapsulated uses of CCR must only comply with the first three criteria. Encapsulated beneficial uses are those that bind the CCR into a solid matrix that minimizes their mobilization into the surrounding environment. Examples of encapsulated uses include, but are not limited to: (1) Filler or lightweight aggregate in concrete; (2) a replacement for, or raw material used in production of, cementitious components in concrete or bricks; (3) filler in plastics, rubber, and similar products; and (4) raw material in wallboard production.

Compliance with the first three criteria suffices because, as discussed in Unit IV of this document, the available information demonstrates that encapsulated uses of CCR raise minimal health or environmental concerns. The Agency did not receive any data to contradict this assessment during any of the comment periods. In addition, since publication of the proposal, the Agency conducted a study of FGD gypsum in wallboard and fly ash concrete, which further supports this conclusion. This study “*Coal Combustion Residual Beneficial Use Evaluation: Fly Ash Concrete and FGD Gypsum Wallboard*” (February 2014) concluded that “environmental releases of constituents of potential concern (COPCs) from CCR fly ash concrete and FGD gypsum wallboard during use by the consumer are comparable to or lower than those from analogous non-CCR products, or are at or below relevant regulatory and health-based benchmarks for human and ecological receptors.”

Criteria 1: CCR must provide a functional benefit. This criterion is designed to ensure that the material performs a genuine function in the product or use; while it need not improve product performance when compared to the material for which it is substituting, CCR must genuinely be a necessary component of the product. In other words, there must be a legitimate reason for using CCR in the product other than the fact that it is an alternative to disposal of the material, e.g., the material fulfills material specifications. For example, CCR provides a functional benefit when used as a replacement for cement in concrete

because the CCR increases the durability of the concrete and is also more effective against degradation from salt water. FGD gypsum serves the same function in the production of wallboard as mined gypsum, and meets all product specification. Additionally, CCR can be used to adjust the pH of soils thereby increasing and promoting plant growth.

One commenter noted that many states already consider whether the material provides a functional benefit when making beneficial use determinations under their regulatory programs. The Agency agrees that this is an important criterion in determining whether a use is a “beneficial use.” To the extent that a state regulatory program has determined that a particular use provides a functional benefit, this may serve as evidence that this criterion has been met.

Criteria 2: CCR must substitute for the use of a virgin material, conserving natural resources that would otherwise need to be obtained through practices, such as extraction. This criterion is intended to ensure that the use is truly “beneficial” from an environmental perspective. Examples of CCR used as a substitute for a virgin material include FGD gypsum for mined gypsum and the use of fly ash in lieu of Portland cement thereby reducing the need for cement. The use of FGD gypsum in the manufacture of wallboard reduces the need to use virgin gypsum, thereby conserving natural resources (virgin gypsum) while conserving valuable energy that would be needed to mine the virgin gypsum. Similarly, the use of CCR fly ash in lieu of Portland cement reduces the overall need for cement. CCR used in a road bed application substitutes for the use of quarried natural materials that provide structural support for the road surface.

One commenter again highlighted that many states consider this criterion in their current state beneficial use programs. The Agency agrees that this second criterion is appropriate, and that conserving natural resources is an important function that should be encouraged. Here as well, potential users of CCR materials may choose to rely on a state determination to provide evidence that this criterion has been met.

Criteria 3: The use of CCR must meet relevant product specifications, regulatory standards, or design standards, when available, and where such specifications or standards have not been established, CCR may not be used in excess quantities. This criterion was intended to address both the legitimacy of the use and the potential environmental and human health

consequences associated with the use of excess quantities of CCR, particularly unencapsulated CCR. If excessive volumes of CCR are used—*i.e.*, greater than necessary for a specific project—that calls into question whether the purpose of the application was in fact a sham to avoid compliance with the disposal regulations. In addition, the record demonstrates that the risks from use of CCR are more likely to be associated with large volumes, particularly for unencapsulated uses.

The Agency has modified this criterion slightly from the proposed rule. The proposed rule merely referenced “relevant product specifications or regulatory standards” and EPA was concerned that this was too narrow, and might not incorporate all of the relevant technical information currently available that provides guidance on what constitutes an excess amount. Consequently, in the final definition the Agency has added the phrase “design standards.” Design standards are different from product specifications, because they include things other than “products.” An example of a “design standard” would be technical guidance specifying that six inches of CCR is to be used in constructing a road.

EPA received several comments on this provision, several of which criticized the sole reliance on engineering performance standards. For example, one commenter questioned how the Agency would quantify acceptable amounts for each use if no specifications or standards were in place. One commenter stated that the Agency needs to rely on more than the existence of engineering performance standards or comparisons to typical application rates of mined materials as coal combustion wastes are unique materials and comparisons to typical rates of application of natural gypsum or other soil amendments are inappropriate. Another commenter suggested a provision that would require users to follow a plan to only use what is necessary to reach the desired effect, in lieu of product specifications.

EPA purposely did not attempt to establish product specifications for each potential beneficial use application. The potential products are too varied, and in many instances EPA lacks the necessary expertise (*e.g.*, to develop manufacturing specifications for individual products.). Nor is such an approach necessary. When CCR substitutes for other materials, the amount used is typically controlled by product specifications, particularly for encapsulated uses. Product

specifications currently exist for many, if not most, of the significant uses of CCR and can be found in a variety of sources. For example, as previously described, fly ash used as a stabilized base course in highway construction is subject to both regulatory standards under DOT/FHWA, and engineering specifications, such as the ASTM C 593 test for compaction, the ASTM D 560 freezing and thawing test, and a seven-day compressive strength above 2760 kPa (400 psi).

Similarly, in an agricultural setting, EPA expects all appropriate standards, constituent levels, prescribed total loads, and application rates to be met. For example, EPA has developed specific standards governing the agricultural application of biosolids. While the management scenarios differ between biosludge application and the use of CCR as soil amendments, EPA would consider application of CCR for agriculture uses not to be a legitimate beneficial use if they occurred at constituent levels or loading rates greater than EPA’s biosolids regulations. Several commenters also noted that agronomic rates currently exist for certain items such as peanuts, cotton, tomatoes, corn and soybeans.⁴⁴ EPA would generally consider application of CCR above these rates, or any other rate that has been scientifically justified, to constitute disposal rather than beneficial use.

Many other sources of technical reports and documents exist for other uses. ASTM Standard E2277–03 provides standard guidance and a methodology for using CCR in a structural fill and includes a consideration of engineering properties and behaviors, testing procedures, and design considerations relevant to constructing a structural fill project using CCR. Industry guidance, such as USWAG’s “*Engineering and Environmental Guidance on the Beneficial Use of Coal Combustion Products in Engineered Structural Fill Projects*” may also provide information relevant to this issue. Further, some states, such as Wisconsin and Virginia, have developed environmental guidance for evaluating the suitability of a site prior to construction of a CCR structural fill.

While many of these documents do not establish binding requirements, nor is EPA seeking to make them binding on users, they provide evidence of the design and construction practices, including the amounts that are typically

used throughout the industry, and provide a basis on which to evaluate whether excessive quantities have been used in a particular application. These types of documents are also relevant in making judgments on the larger question—whether the activity is legitimate reuse or merely sham disposal. In essence, product specifications serve the same function as the requirement suggested by a commenter for a plan to only use what is necessary to reach the desired effect.

Commenters were also concerned that the proposed standards, and particularly this criterion, did not include any provision that would ensure that CCR reuse was protective of human health and the environment. One commenter stated that product specifications and engineering standards do not speak to environmental risk or consumer exposure. This same commenter was concerned that the proposed criteria used circular logic by stating that excess materials were not to be used in cases where specifications or standards have not been established. Another commenter criticized this criterion because it did not include threshold levels that protect public health from the range of toxicants routinely found in coal ash.

EPA generally disagrees that the requirement to ensure that excessive volumes have not been used is unrelated to environmental and safety concerns. Minimizing the amount of material used in a product or released to the environment decreases potential exposures to the material. EPA agrees, however, that an additional criterion that more directly addresses the potential health and environmental risks is appropriate for unencapsulated uses, which present the greater potential for exposures of concern. As discussed in more detail below, the Agency has added a criterion to specifically require users of unencapsulated CCR to demonstrate that environmental and health related standards have been met. The criterion is a general performance standard that is equally applicable to all sites and uses and will account for a wide variety of potential exposures. By contrast, in order to establish toxicant “threshold levels,” EPA would need to develop risk assessments that account for the wide variety of potential uses and exposures. This is neither practical nor feasible, given the site specific nature of the potential risks and the myriad of potential uses. In addition, EPA disagrees that this is necessary, as the performance standard laid out in the fourth criterion will appropriately address the risks documented in the current record for these uses.

⁴⁴ Commenters argued that, at least in agronomic settings, there is no incentive to use excess amounts because it simply increases the grower’s cost.

Furthermore, as the Agency has previously stated in the May 2000 Regulatory Determination and the 2010 proposal, leaving the Bevill determination in place for beneficial use does not conflict with EPA's view that certain beneficial uses, e.g., use in road construction and agriculture, should be conducted with care, according to appropriate management practices, and with appropriate characterization of the material and the site where the materials will be placed. EPA has concluded that the potential risks of these uses do not warrant federal regulation, but can be addressed, if necessary, in other ways.

State programs exist and have the expertise to address beneficial use applications. In addition, the Agency is currently developing a framework to address the risks associated with the beneficial use of unencapsulated materials. This framework is expected to be finalized in 2015; the framework will be available to assist in the implementation of issues associated with the unencapsulated uses of CCR. The Agency has also been working with the U.S. Department of Agriculture to address the risks associated with the agricultural use of CCR. In conclusion, the Agency believes that sufficient tools are available (or will soon be available) to address the site-specific risks associated with the beneficial use of CCR.

Criteria 4: When unencapsulated use of CCR involving placement on the land of 12,400 tons or more in non-roadway applications, the user must demonstrate and keep records, and provide such documentation upon request, that environmental releases to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use. The Agency has established an environmental criterion to protect human health and the environment in response to numerous comments received on the proposal raising concern that additional provisions were necessary to ensure that unencapsulated uses of CCR needed to be conducted in an environmentally protective manner. The Agency discussed in the proposed rule the ways in which the use of CCR in an unencapsulated manner could affect groundwater, surface water, air and be associated with dust emissions. This fourth "environmental" criterion requires potential users to address potential risks from all of these

pathways in order to avoid compliance with the final disposal requirements. Existing sources of guidance and standards (e.g., ASTM E2277-03 and USWAG's "*Engineering and Environmental Guidance on the Beneficial Use of Coal Combustion Products in Engineered Structural Fill Projects*," to name just two that are currently available), are available and may provide useful assistance for determining if the use of CCR are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use. Information (e.g., modeling results, proposed designs, risk assessments, etc.) that have been proposed or developed to comply with state standards that explicitly address the environmental impacts of unencapsulated uses may also be relevant to this determination.

i. Source of the 12,400 Ton Threshold and Fill Operations.

As discussed earlier in this section, the fourth criterion was designed to address whether the activity is appropriately considered to be "disposal" and whether that "disposal" warrants regulation. Thus, the final criterion correlates to the practices and the risks at issue: The placement of large quantities of CCR in a single concentrated location, as documented by the 2014 risk assessment and the damage cases.

In the proposed rule, EPA explained that the risks of greatest concern from unencapsulated beneficial uses were associated with the placement of CCR in quarries and sand and gravel pits, and with large scale fill operations used to re-grade the landscape. EPA generally proposed to define these operations as "disposal" rather than "beneficial use." As discussed below, EPA has retained that approach with respect to the placement in sand and gravel pits and quarries; consequently the fourth criterion need not account for these uses. By contrast, EPA has not definitively concluded that "large scale fill operations," per se, constitute the disposal of CCR. This is because EPA agrees with commenters that, if constructed correctly, large scale fill operations can meet all of the criteria for a beneficial use. But EPA also agrees that these applications can present risks to human health and the environment, and therefore has drafted the fourth criterion to specifically address the risks presented by these operations. The fourth criterion is thus tied to the

Agency's general approach to large scale fill.

The Agency acknowledged in the proposal that additional guidance was warranted on what would constitute a large scale fill operation, and received numerous comments on this issue in response to the proposal. EPA requested comments again on the topic of large scale fills in a Notice of Data Availability (NODA). 78 FR 46940 (August 2, 2013). The NODA discussed the fact that many commenters on the proposed CCR rule stated that EPA should have developed a size criterion to define large scale fill operations. One commenter suggested 5,000 cubic yards as a size criterion for a CCR landfill, but did not provide a basis for this. Other commenters suggested size criteria but for different reasons than defining disposal criteria; for example, Wisconsin has a standard where all CCR used for unconfined and confined "fill projects exceeding 5,000 cubic yards require concurrence by the State prior to commencement of the project." Similarly, West Virginia stated that "unencapsulated use of CCR as structural fills not exceeding 10,000 cubic yards are approvable on a case-by-case basis."

In the NODA, EPA identified three different types of data sets that could provide information relevant to developing appropriate criteria or to otherwise defining what constitutes a "large scale" fill operation. EPA solicited comment on the adequacy of the data sets and whether EPA should consider them for the purpose of creating criteria or a definition. The three data sets were: (1) The size of the structural fills that have resulted in damage cases; (2) the distribution of landfill sizes, derived either from an EPA Office of Water's questionnaire or from the landfill size distribution used in the proposed rule; and (3) the size distribution for large scale fills that have been constructed in North Carolina. Many commenters argued that it was entirely inappropriate for EPA to specify in the rule when a project constitutes beneficial use simply by volume or amount of structural fill necessary to construct a stable base for a building. Commenters argued that a large scale fill operation, if designed appropriately, constituted a legitimate beneficial use. In fact, industry commenters universally claimed that they were not aware of any damage cases or adverse environmental impacts associated with structural fills that had adhered to industry guidance (e.g., ASTM standard E2277-03 for structural fills and the USWAG *Engineering and Environmental Guidance on the Beneficial Use of CCPs*

in *Engineered Structural Fill Projects*), and argued that the history of well-designed and implemented engineered structural fills demonstrate that CCR can serve as a valuable resource in avoiding disturbing native ground to secure borrow soils where fill materials are needed to establish a final grade for a project site that meets the need of the proposed final use. To this end, the commenters also acknowledged that site characterization and characterization of the CCR are fundamental to the construction of fills across the U.S. Similarly, other commenters stated that size should not be the only criterion used to define large scale fill operations and highlighted that the site conditions, including such features as the hydraulic conductivity of the area, should also be an important criterion to consider. Still other commenters stated that CCR landfills cannot include large scale fill CCR beneficial use projects because such operations do not involve disposal of a solid waste. Rather, industry commenters argue that the determination as to what is disposal as opposed to beneficial use should be a determination that rests solely with state agencies. These commenters suggested that the determination as to whether a particular fill project constituted disposal, rather than beneficial use should be based on a series of factors, and not simply a size-cut-off. Finally, other commenters argued that the Agency incorrectly presumed that only large scale fill operations could cause environmental damage, and suggested that rather than regulating large scale fill operations solely on the basis of the volume or the amount of CCR involved, the information available to EPA from damage cases and monitoring data suggests that an additional, if not primary criteria for regulating fill operations, including those involved in highway construction, should include the prevention of CCR coming into contact with water. Focusing on the risks of concern—that large scale fills were effectively operating as landfills—the Agency reviewed the database of landfills used in the 2014 risk assessment and has established a threshold limit that corresponds to the smallest size landfill in the risk assessment database. EPA selected this threshold as the trigger for requiring an affirmative demonstration by the user that there will be no releases of concern as a consequence of the land application, because the available evidence in the record (*i.e.*, the 2014 risk assessment) demonstrates that at these volumes the potential risks are of

such significance to warrant regulation. Based on this evidence, the burden then shifts to the potential user to demonstrate that these potential risks do not exist at the particular site or have been adequately mitigated. Under this approach, unencapsulated beneficial use applications greater than or equal to 12,400 tons can still be conducted without becoming subject to the disposal regulations by using engineering principles, such as a liner system, and demonstrating that environmental releases to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors. EPA agrees that the volume of CCR involved should not be the sole basis for determining whether an operation constitutes disposal. As such, the Agency is requiring the use of the fourth criterion in order to address any potential risks associated with unencapsulated uses of CCR that are in excess of 12,400 tons. Users will be required to make an affirmative demonstration relating to the potential environmental releases and the potential risks of the application (in addition to requiring compliance with the other three criteria). Specifically, users will be required to demonstrate that environmental releases to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use. EPA expects such determinations to take into account a wide variety of factors, including the hydraulic conductivity of the area, proximity of the material to water, and the likelihood of contact with water. EPA also expects that such determinations would take into account, as many commenters acknowledged to be appropriate and necessary, the need for site characterization and characterization of the CCR. The fourth criterion was adopted in part, to address commenters' concern that the EPA should include a criterion that prevents the placement of CCR in water sources. These are legitimate concerns; existing damage cases show that the placement of CCR in sand and gravel pits was almost always associated with CCR being placed in contact with water. The fourth

criterion will require the user to demonstrate that environmental releases to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use. As a consequence of this requirement, EPA expects that significant changes may need to be made in order to proceed with a proposed use; for example, conducting the required assessment, may demonstrate that the only way to achieve the performance standard is to install engineering features, such a liner, as part of the proposed project.

Application of unencapsulated CCR to the land in volumes less than the 12,400 tons will not require an affirmative demonstration to be considered a beneficial use. While the Agency has sufficient information to document that unencapsulated uses can present a hazard, based on the current rulemaking record, EPA lacks the information necessary to demonstrate that unencapsulated uses in smaller amounts are likely to present a risk.⁴⁵ In other words, the evidence relating to these uses is not sufficient to shift the burden to the potential user to affirmatively demonstrate the safety of the proposed use. Nevertheless, the Agency expects potential users of unencapsulated CCR below this threshold to work with the states to determine the potential risks of the proposed use at the site and to adopt the appropriate controls necessary to address the risks. In this regard, EPA notes that the composition and leaching behavior of CCR being beneficially used may change over time due to upgrades in air pollution controls devices at coal-fired power plants. Further, initial determinations for existing beneficial use (BU) applications may have relied on single-point pH test methods (*e.g.*, TCLP, SPLP) that, depending on actual field conditions in which the applications are occurring, can under- or over-estimate leachate concentrations. Scientific advancements

⁴⁵ In November 2014, EPA received reports alleging that extensive groundwater monitoring data collected by the Wisconsin Department of Natural Resources demonstrated a correlation between beneficial uses of unencapsulated CCR below these thresholds and contaminated drinking water wells in southeastern Wisconsin. Insufficient time was available to allow EPA to evaluate these reports as part of this rulemaking. However, EPA will continue to evaluate the issues associated with unencapsulated uses of CCR, and to the extent available data demonstrate the need for revisions to these criteria, EPA will initiate the necessary rulemaking procedures.

in leach test protocols have found that the degree of leaching can vary by several orders of magnitude. Accordingly, states overseeing CCR BU programs are encouraged to closely evaluate existing BU applications in light of ongoing scientific advances in tools and technologies to ensure these applications remain protective of human health and the environment. In addition, the Agency is working to provide assistance to states and potential users; this includes the release of the Agency's *Industrial Waste Evaluation Model* (IWEM), and the development of a framework for systematically assessing unencapsulated BU applications to aid in assessing whether there are environmental risks associated with site specific structural fills.

ii. Exclusion of Roadway Applications from the 4th Criterion. In the 2010 proposal, the Agency stated that the placement of unencapsulated CCR on the land, such as in road embankments, presented concerns, but that the amount and the manner in which they are used—subject to engineering specifications and material requirements rather than landfilling techniques—are very different from land disposal. The Agency highlighted the 2005 guidance that was developed by EPA, FHWA, DOE, ACAA, and USWAG, addressing the appropriate methodologies and engineering requirements for the use of coal ash in highway construction. Lastly, the Agency noted the difference in terms of volume; the difference between the amounts of CCR that could be disposed of in a landfill vs. the amount of CCR used in the construction of a roadbase (typically on the order of six to twelve inches thick).

EPA received a number of comments requesting that the definition of a CCR landfill exclude CCR used in highway and road construction projects and similar beneficial use projects authorized by an appropriate state agency. These commenters reasoned that the “arbitrary cutoff” discussed in the NODA would inappropriately capture such uses.

The Agency has excluded roadways and associated embankments from the fourth criterion because the methods of application are sufficiently different from CCR landfills that EPA cannot extrapolate from the available risk information to determine whether these activities present similar risks. Roadways are subject to engineering specifications that generally specify CCR to be placed in a thin layer (e.g., six to 12 inches) under a road. The placement under the surface of the road

limits the degree to which rainwater can influence the leaching of the CCR.

There are also significant differences in the manner in which roadways and landfills can potentially impact groundwater. These include the nature of mixing in the media, the leaching patterns, and how input infiltration rates are generated. First, CCR landfills are typically a homogeneously mixed system, and as a result, there are no spatial variations of the chemical and physical properties of the media (for example, bulk density, hydraulic conductivity and contaminant concentration). By contrast, roadways are generally constructed of several layers with different material properties (heterogeneity). This difference affects the hydraulic conductivity of a mass of CCR in a landfill, as compared to CCR placed in an embankment. Any potential leaching will tend to spread over the length of the embankment, as opposed to the leaching in a downward motion that would occur in a homogeneously filled landfill.

Finally, (and perhaps most critically) the construction of roads and associated embankments are supervised and approved by State and/or Federal Department of Transportation (DOT) engineers who ensure compliance with engineering specifications

While EPA is exempting roadbed applications of 12,400 tons or larger from the fourth criterion, EPA is mindful of situations where large quantities of CCR have been used without appropriate engineering controls or where placement on the land has apparently far exceeded those necessary for the engineering use of the materials. One such situation occurred in Puerto Rico with CCR generated by the AES Coal Fired Power Plant in Guayama. As discussed in Unit IV.B of this document, CCR and an aggregate created from them (“AGREMAX”) were being used as fill in housing developments and in road projects. Over two million tons of this material was used between 2004 and 2012. When made aware of the situation, EPA raised concerns over the use of CCR and AGREMAX based on the fact that the Environmental Quality Board had not imposed engineering controls, specified appropriate uses, or otherwise limited the use of AGREMAX by the end users. Inspections of some of the sites where the material had been placed showed use in residential areas, areas close to wetlands and surface waters and/or over shallow sole source drinking water aquifers. In addition, in some cases the volumes appeared to be in excess of what was necessary for engineering uses and some sites appeared to be

abandoned. This kind of situation will be directly addressed by the new beneficial use criteria promulgated in the final rule. To qualify as a beneficial use, the use of AGREMAX would need to meet all four of the criteria—that is, it must provide a functional benefit, substitute for a virgin material, meet product specifications, and in this case, the user would be required to make the environmental demonstration for the non-roadbed applications.

iii. Kinds of unencapsulated uses of CCR required to comply with the fourth criterion.

Unencapsulated uses of CCR are numerous and range, in total use, from hundreds of thousands of tons to millions of tons per year. These applications include, as examples, the following: (1) Flowable fill; (2) structural fills; (3) soil modification/stabilization; (4) waste stabilization/solidification; (5) use in agriculture as a soil amendment; and (6) aggregate.

Many of these unencapsulated uses, other than structural fills, are not generally expected to be used in amounts that would require an environmental demonstration under the fourth criterion. And for several of these applications, which can be structurally very different from landfills, EPA expects that even if these applications are used in amounts greater than 12,400 tons, potential users will be easily able to meet the performance standard. For example, the use of CCR for soil modification or stabilization, agriculture, waste stabilization/solidification, aggregate or flowable fill applications, is generally not similar to the mounding that occurs in a landfill situation. These differences can have a tremendous bearing on the leaching potential of the CCR materials.

Structural fills, however, can be larger applications and so may be required to demonstrate compliance with the environmental standards in the fourth criterion more frequently. In addition, because structural fills can be similar to the landfills regulated in the final disposal rule, some proposed applications may need to install engineering features to meet the performance standard.

iv. Demonstration that “environmental releases to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use.”

The environmental fourth criterion requires a potential use of CCR to compare analogous products or to perform an environmental assessment evaluating whether releases to the environment are at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use. A demonstration should consider the development of a conceptual model to assist in the determination of whether the environmental criteria contained in the definition of the term “beneficial use of CCR” can be demonstrated. Numerous potential pathways exist and these should be evaluated as necessary depending on the potential application of the CCR. Potential exposure pathways include exposure to groundwater, surface water, air, and soils. Generation of dust, leaching to groundwater and surface water, inhalation of mercury, and plant uptake are areas that need to be evaluated. A complete evaluation of the types of releases, the types of exposure and the receptors that may be potentially affected by a potential application will need to be conducted. A screening comparison will need to be performed comparing the concentrations of individual constituents of potential concern to the following benchmarks: human soil ingestion, ecological soil, tap water ingestion, fish ingestion, surface water, sediment, and inhalation. As an example, a user could compare a mercury concentration to a human health screening benchmark with an inhalation value of 300 ng/m³. Existing documents that can be used to gain an understanding of conceptual models, pathways and regulatory limits include: *Risk Assessment Guidance for Superfund, Exposure Factors Handbook, Volumes I, II and III, Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual Part A, Industrial Waste Management Model (IWEM) Technical Backgrounds Document, Exposure Factors Handbook, Human and Ecological Risk Assessment of Coal Combustion Wastes*. In addition, although it is not directly applicable, a potential user of unencapsulated CCR may find it useful to consult the previously mentioned “*Coal Combustion Residual Beneficial Use Evaluation: Fly Ash Concrete and FGD Gypsum Wallboard*” and the “*Methodology for Evaluating Encapsulated Beneficial Uses of Coal Combustion Residuals*” to assist in the determination of whether the unencapsulated CCR is comparable to or lower than those from analogous

products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use.

After the effective date of the final rule, any potential user of CCR that makes the demonstration in the fourth criterion must keep records and provide such documentation upon request.

b. Placement in Sand and Gravel Pits and Quarries

EPA proposed that, without exception, unencapsulated CCR placed in sand and gravel pits, and quarries should not constitute beneficial use, but disposal. The Agency highlighted a number of damage cases that involved the filling of old, unlined quarries or gravel pits with large quantities of unencapsulated CCR, under the guise of “beneficial use.” Because of the damage cases and the concern that in such instances, sand and gravel pits and quarries were essentially operating as landfills, EPA proposed to define the placement of CCR in sand and gravel pits or quarries as land disposal that would be subject to regulation under either of the proposed regulatory options. The proposal specifically defined a *CCR landfill* as a disposal facility or part of a facility where CCR are placed in or on land and which is not a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit. For purposes of this part, landfills also include piles, sand and gravel pits, quarries, and/or large scale fill operations. Sites that are excavated so that more coal ash can be used as fill are also considered CCR landfills.

Commenters stated that there were numerous examples of harm caused by the unencapsulated “reuse” in sand and gravel pits and quarries, which demonstrate that these unencapsulated uses were merely disposal in disguise, and must be regulated stringently under Subtitle C of RCRA to prevent the risks they pose of contaminating groundwater, surface water, and ecological systems with heavy metals and other harmful pollutants. In particular, they argue that “There have already been at least 13 damage cases caused by the disposal of coal ash in sand and gravel pits or former quarries that led to contamination of water sources and/or ecological damages.” Some commenters also agreed that placement in sand and gravel pits and quarries should not be considered

beneficial use. For example, one commenter agreed that CCR placement in sand and gravel pits and quarries is “disposal” and not beneficial use while another commenter wrote that it concurs that large-scale fills in quarries in poorly engineered applications can cause negative impacts. Other commenters highlighted that damage cases related to sand and gravel pits and quarries were old practices that no longer take place. These commenters argued that while sand and gravel quarries have been used to dispose of CCR, it is not correct to assume that with proper engineering and environmental standards that CCR cannot be used beneficially to reclaim quarries for uses such as recreational areas, commercial or industrial uses, or to aesthetically improve the characteristics of the land.

EPA is finalizing its proposal that placement of CCR in sand and gravel pits constitutes disposal, rather than beneficial use. The final definition of a CCR landfill explicitly includes placement of CCR in sand and gravel pits and quarries. EPA has adopted this approach because the practice has resulted in numerous damage cases as a result of the highly permeable strata typically present at such sites. Moreover, while the commenters may be correct that “with proper engineering measures, placement in sand and gravel pits and quarries can be conducted safely”, they submitted no data to support this contention. The only engineering features the available information demonstrate would be protective are those that have been determined to be necessary for CCR landfills—*i.e.*, composite liners and groundwater monitoring. And in the absence of these features, any future placement in sand and gravel pits and quarries could not meet the performance standard in the fourth criterion: *i.e.*, that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use.

B. Definitions

EPA proposed definitions for a number of key terms used in the proposed subtitle D rule that the Agency determined were necessary for the proper interpretation of the proposed requirements, *e.g.*, *coal combustion residuals, existing CCR landfill*. (See 75 FR 35196–97, June 21, 2010.) In addition, EPA also proposed definitions for terms that were specific to certain regulatory requirements, *e.g.*, *seismic impact zone*.

EPA is finalizing many of the regulatory definitions that were proposed, some with modifications. Several definitions that were proposed have been removed because they are no longer relevant to this rulemaking and a number of new definitions have been added. Specifically, definitions that have been removed from the final rule include: natural water table, probable maximum precipitation, surface water, systemic toxicants and upstream toe. New definitions are discussed in the technical section of the rule for which they apply. The majority of the regulatory definitions contained in the proposed rule have been retained in the final rule, as proposed or with minor clarifying changes. These definitions are codified in § 257.53 and include the following: *acre foot, active life, aquifer, area capacity curves, areas susceptible to mass movement, coal combustion residuals (CCR), displacement, facility, factor of safety, fault, freeboard, groundwater, hazard potential classification, high hazard potential surface impoundment, significant hazard potential surface impoundment, low hazard potential surface impoundment, holocene, hydraulic conductivity, karst terrain, lithified earth material, maximum horizontal acceleration in lithified earth material, new CCR landfill, new CCR surface impoundment, operator, owner, poor foundation conditions, recognized and generally accepted good engineering practices, representative sample, run-off, run-on, sand and gravel pit or quarry, seismic impact zone, state, structural components, unstable area, uppermost aquifer, and waste boundary.*

Several definitions received a significant number of comments and upon further evaluation by EPA have been modified to better explain their meaning or intent. This includes the definitions for the following terms: *CCR landfill or landfill, CCR surface impoundment or impoundment, existing CCR landfill and existing CCR surface impoundment.* These comments, along with the revisions made in response are discussed in more detail below. In addition, EPA has revised a number of definitions, or added new definitions, to be consistent with revisions made in the corresponding technical requirements. These are discussed in the various sections of the preamble that address the specific technical requirement. For example, as discussed in Unit V of this document, EPA has revised the definition of “independent registered professional engineer or hydrologist” to “qualified professional engineer” to

address the concerns raised in comments.

1. Definition of *CCR Landfill*

EPA proposed to define a *CCR landfill* as a disposal facility or part of a facility where CCR is placed in or on land and which is not a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit. For purposes of this subpart, landfills also include piles, sand and gravel pits, quarries, and/or large scale fill operations. Sites that are excavated so that more coal ash can be used as fill are also considered CCR landfills. (See 75 FR 35239.) The Agency received a significant number of comments on the proposed definition. These comments focused almost exclusively on the inclusion of “large-scale fill operations” and “piles” within the definition of CCR landfill. Regarding large-scale fills, commenters argued that one of the fundamental problems with the proposed definition was that it assumed all CCR placed in large scale fill operations constituted “disposal” of CCR (and that these operations therefore constitute CCR landfills) rather than beneficial use. Commenters further argued that CCR is often used in engineered fills, such as road base and road embankments and that these legitimate beneficial use operations should not be subject to the CCR landfill regulations.

Commenters also argued that “piles” should be omitted from the definition of a CCR landfill for a variety of reasons. Several commenters argued that including the word “pile” was overly broad and insufficiently prescriptive and would inappropriately capture on-going or short-term CCR management activities that did not constitute disposal, such as storage for beneficial use. These commenters also raised concern that including “piles” in the definition of CCR landfill without further clarification or specificity, *i.e.*, when used as part of a beneficial use operation, would negatively affect beneficial use activities. Other commenters raised concern that the term “piles” was too vague, and suggested that whether piles were treated as CCR landfills should be determined by the size of the piles, or the intent for which such piles exist. These commenters suggested the Agency should exclude small piles of CCR that are staged and/or consolidated prior to transport or placement for disposal. These commenters argued that subjecting all CCR piles to all of the

landfill requirements was “illogical and inappropriate.”

Certain commenters argued that piles should not be regulated under this rule because they do not present a significant risk to the environment, as evidenced by a lack of damage cases. Alternately, other commenters suggested that if EPA were to regulate piles, the Agency should consider a regulatory strategy other than regulation as a CCR landfill. One alternative regulatory strategy suggested was to include an option establishing a limit (*e.g.*, 180 days) on the amount of time that the CCR could be allowed to be maintained in a pile without regulation as a CCR landfill. Another option suggested was to develop a set of reasonable design and operating standards consistent with the uses and risks posed by piles. Such design standards could include the requirement for a low permeability underlayment or base such as asphalt, concrete or a high density polyethylene (HDPE) liner. Operating standards could include such provisions as labeling, and the requirement to remove at least 90 percent of the contents every 90 days, with a full cleanout annually.

EPA believes the suggested option to establish a time limit would be difficult to oversee and verify. States and citizens would have no way to determine when CCR is placed in a pile and when the CCR was subsequently removed. Therefore, EPA is rejecting this suggested option. The suggested option to develop appropriate design and operating standards is essentially the approach EPA has adopted, as discussed in more detail below. However, the final design and operating standards differ according to the management practices, and include measures to control fugitive dust, and for certain practices, require the installation of a composite liner and leachate collection system.

EPA discussed its final approach to large-scale fill operations in Unit V of this document; the definition of a CCR landfill has been revised to be consistent with the approach described in that section. As explained at length, EPA has adopted a final approach that distinguishes between beneficial use and the “disposal” of CCR. Activities that meet the definition of beneficial use are not subject to these regulations. Activities that do not meet all of the criteria in the definition of a beneficial use—and in particular, such activities that involve the placement of unencapsulated CCR on the land—are considered disposal and are subject to the requirements of this final rule. Consistent with this approach the final definition of a CCR landfill has been revised to clarify that it includes “the

use of CCR that does not meet the definition of a beneficial use of CCR.” Waste piles, including those used to temporarily store or manage CCR on-site prior to disposal in a CCR landfill or subsequent beneficial use, have been retained within the definition of a CCR landfill. In making this determination the Agency was strongly influenced by the similarities in the potential risks posed by both waste piles and CCR landfills to human health, groundwater resources, or the air if improperly managed. Both CCR piles and CCR landfills are subject to external factors such as rain and wind, which can adversely affect human health and the environment. For example, uncontrolled run-on and run-off can result in ponding of water in and around the unit resulting in increased leachate which has the potential to affect groundwater. Similarly, absent dust control measures, such as the conditioning of CCR, both CCR landfills and CCR piles have the potential to generate significant amount of fugitive dust. Indeed, CCR piles are generally more susceptible to the creation of fugitive dusts. And contrary to the commenters’ contention about the absence of damage cases, the single most frequent issue presented during the public hearings was the allegation by individual citizens of damage caused by fugitive dusts from neighboring CCR facilities. Moreover, the same pollution control measures, such as liners, leachate collection systems, and groundwater monitoring, will address the potential adverse effects from both of these units. As such, the Agency sees no reason to treat piles and landfills differently.

EPA also disagrees that the inclusion of CCR piles would capture on-going or short-term CCR management activities that do not constitute disposal. Irrespective of whether the facility is using the pile as “temporary storage” or ultimately intends to direct the CCR to beneficial use, by placing the CCR on the land with no containment or other method of preventing environmental exposures, the facility is engaging in an activity that clearly falls within the statutory definition of disposal. See 42 U.S.C. 6903(3) (“placing of solid waste . . . on any land, so that such solid waste . . . or any constituent thereof may enter the environment.”) Moreover, even where the facility intends the pile to be “temporary,” some amount of CCR inevitably remains in place. And if this was not the case, under section 1008(a)(3), EPA is authorized to establish criteria governing all aspects of solid waste management—which explicitly is defined to include

“storage” as well as all of the other activities identified by the commenters—to ensure the protection of human health and the environment. See 42 U.S.C. 6903(28).

Nevertheless, EPA agrees that not every activity that involves the management of CCR must occur in a unit that meets all of the technical requirements of a CCR landfill (e.g., groundwater monitoring). The key concern EPA is seeking to address with the inclusion of piles is the uncontrolled exposure from the extended, repeated, or indefinite placement of large amounts of unconsolidated CCR directly on the land. To the extent those exposures are controlled, whether through the use of tanks or some other kind of containment measures, the practice is neither considered to be a “pile” nor disposal in a landfill.

To clarify this, and in response to the concern that the term “piles” was too vague, EPA has adopted a definition of the term “CCR pile” to identify those “piles” that are subject to the disposal requirements in this regulation. The final regulation specifies that a CCR pile means any non-containerized accumulation of solid, non-flowing CCR that is placed on the land. This definition mirrors the existing definition of “waste pile or pile” from the part 257 regulations, (i.e., the regulations that currently apply to CCR facilities), as well as the definition in part 260. The use of the phrase “non-containerized” is not intended to require that all activities occur within tanks or containment structures, but merely that specific measures have been adopted to control exposures to human health and the environment. This could include placement of the CCR on an impervious base such as asphalt, concrete, or a geomembrane; leachate and run-off collection; and walls or wind barriers. CCR managed in such a fashion would not be CCR piles and, therefore, not CCR landfills subject to this regulation. To further clarify how this relates to EPA’s overall approach to beneficial use it is important to distinguish between CCR that is actually being used beneficially and CCR that may someday be used beneficially. CCR that is currently being used beneficially—for example, fly ash that has been transferred to a cement manufacturer and that is stored off-site in a “temporary pile,” and that complies with all of the criteria in the definition to be considered a beneficial use including the fourth criterion relating to the placement of large quantities of unconsolidated CCR on the land—would not be subject to the regulations applicable to CCR disposal.

Accordingly, the final regulation specifies that practices that meet the definition of beneficial use of CCR are not subject to the “disposal” requirements of the rule.

By contrast, CCR located on-site that may someday be used beneficially but is not yet beneficially used remains subject to the disposal rule. Given that landfills and surface impoundments can be periodically dredged to provide material for beneficial use, any other approach would be impracticable, and would exclude from regulation many of the greatest sources of risk. An example of a “pile” that is not yet beneficially used is unconsolidated CCR placed on the land, that have been designated by the CCR facility to be transferred to another location for subsequent beneficial use (e.g., use as road bed) in the near future.

Several commenters also suggested that the definition of a CCR landfill should explicitly exclude the use of CCR at surface coal mining and reclamation operations, to reflect the Agency’s intention not to cover such activities. The Agency agrees and has revised the definition to explicitly provide that the term CCR landfill does not include the use of CCR at coal mining and reclamation operations.

Consequently, the Agency is finalizing a definition of “CCR landfill or landfill” that can be found in § 257.73. On a related matter, the definition of CCR landfill or landfill contains the terms “sand and gravel pits or quarries.” EPA proposed a “sand and gravel pit and/or quarry” to mean an excavation for the commercial extraction of aggregate for use in construction projects. The Agency received comments on the definition of sand and gravel pit and/or quarry suggesting that the term “commercial extraction” was too narrow. Specifically commenters were concerned it would exclude non-commercial extraction, such as gravel pits operated by municipalities, and exclude metallic mineral mines, nonmetallic mining for other than sand and gravel, and coal mines. EPA agrees that the use of the term “commercial extraction” renders the proposed definition too narrow, as there is no basis for distinguishing between commercial and non-commercial extraction, either because of the risks these activities pose, or any other consideration relevant to this rulemaking. EPA is, therefore, revising “sand and gravel pit and/or quarry” to mean an excavation for the extraction of aggregate, minerals, or metals. The term sand and gravel pit and/or quarry does not include subsurface or surface coal mines.

2. Definition of CCR Surface Impoundment

EPA proposed to define a CCR surface impoundment to mean a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials) which is designed to hold an accumulation of CCR containing free liquids, and which is not an injection well. Examples of CCR surface impoundments are holding, storage, settling, and aeration pits, ponds and lagoons. CCR surface impoundments are used to receive CCR that have been sluiced (flushed or mixed with water to facilitate movement), or wastes from wet air pollution control devices, often in addition to other solid wastes.

The Agency received many comments on the proposed definition of CCR surface impoundment. The majority of commenters argued that the definition was overly broad and would inappropriately capture surface impoundments that are not designed to hold an accumulation of CCR. Commenters were concerned that the proposed definition could be interpreted to include downstream secondary and tertiary surface impoundments, such as polishing, cooling, wastewater and holding ponds that receive only de minimis amounts of CCR. Commenters reasoned that these types of units in no practical or technical sense could be described as units “used to receive CCR that has been sluiced.”

Other commenters raised concern that the definition did not differentiate between temporary and permanent surface impoundments. Commenters stated that many facilities rely on short-term processing and storage before moving CCR off-site for beneficial use or permanent disposal and that these units should not be required to comply with all of the technical criteria required for more permanent disposal impoundments.

Upon further evaluation of the comments, the Agency has amended the definition of CCR surface impoundment to clarify the types of units that are covered by the rule. After reviewing the comments, EPA reviewed the risk assessment and the damage cases to determine the characteristics of the surface impoundments that are the source of the risks the rule seeks to address. Specifically, these are units that contain a large amount of CCR managed with water, under a hydraulic head that promotes the rapid leaching of contaminants. These risks do not differ

materially according to the management activity (*i.e.*, whether it was “treatment,” “storage” or “disposal”) that occurred in the unit, or whether the facility someday intended to divert the CCR to beneficial use. However, EPA agrees with commenters that units containing only truly “de minimis” levels of CCR are unlikely to present the significant risks this rule is intended to address.

EPA has therefore revised the definition to provide that a CCR surface impoundment as defined in this rule must meet three criteria: (1) The unit is a natural topographic depression, man-made excavation or diked area; (2) the unit is designed to hold an accumulation of CCR and liquid; and (3) the unit treats, stores or disposes of CCR. These criteria correspond to the units that are the source of the significant risks covered by this rule, and are consistent with the proposed rule. EPA agrees with commenters that relying solely on the criterion from the proposed rule that the unit be designed to accumulate CCR could inadvertently capture units that present significantly lower risks, such as process water or cooling water ponds, because, although they will accumulate any trace amounts of CCR that are present, they will not contain the significant quantities that give rise to the risks modeled in EPA’s assessment. By contrast, units that are designed to hold an accumulation of CCR and in which treatment, storage, or disposal occurs will contain substantial amounts of CCR and consequently are a potentially significant source of contaminants. However, EPA disagrees that impoundments used for “short-term processing and storage” should not be required to comply with all of the technical criteria applicable to CCR surface impoundments. By “short-term,” the commenters mean that some portion of the CCR is removed from the unit; however, in EPA’s experience these units are never completely dredged free of CCR. But however much is present at any given time, over the lifetime of these “temporary” units, large quantities of CCR impounded with water under a hydraulic head will be managed for extended periods of time. This gives rise to the conditions that both promote the leaching of contaminants from the CCR and are responsible for the static and dynamic loadings that create the potential for structural instability. These units therefore pose the same risks of releases due to structural instability and of leachate contaminating ground or surface water as the units in which CCR are “permanently” disposed.

The final definition makes extremely clear the impoundments that are covered by the rule, so an owner or operator will be able to easily discern whether a particular unit is a CCR surface impoundment. CCR surface impoundments do not include units generally referred to as cooling water ponds, process water ponds, wastewater treatment ponds, storm water holding ponds, or aeration ponds. These units are not designed to hold an accumulation of CCR, and in fact, do not generally contain significant amounts of CCR. Treatment, storage, or disposal of accumulated CCR also does not occur in these units. Conversely, a constructed primary settling pond that receives sluiced CCR directly from the electric utility would meet the definition of a CCR surface impoundment because it meets all three criteria of the definition: It is a man-made excavation and it is designed to hold an accumulation of CCR (*i.e.*, directly sluiced CCR). It also engages in the treatment of CCR through its settling operation. The CCR may be subsequently dredged for disposal or beneficial use elsewhere, or it may be permanently disposed within the unit. Similarly, secondary or tertiary impoundments that receive wet CCR or liquid with significant amounts of CCR from a preceding impoundment (*i.e.*, from a primary impoundment in the case of a secondary impoundment, or from a secondary impoundment in the case of a tertiary impoundment), even if they are ultimately dredged for land disposal elsewhere are also considered CCR surface impoundments and are covered by the rule. To illustrate further, consider a diked area in which wet CCR is accumulated for future transport to a CCR landfill or beneficial use. The unit is accumulating CCR, while allowing for the evaporation or removal of liquid (no free liquids) to facilitate transport to a CCR landfill or for beneficial use. In this instance, the unit again meets all three definition criteria, it is a diked area (*i.e.*, there is an embankment), it is accumulating CCR for ultimate disposal or beneficial use; and it is removing any free liquids, (*i.e.*, treatment). As such, this unit would meet the definition of CCR surface impoundment. In all of these examples significant quantities of CCR are impounded with water under a hydraulic head that will be managed for extended periods of time. This gives rise to the conditions that both promote the leaching of contaminants from the CCR and are responsible for the static and dynamic loadings that create the potential for structural instability. These units therefore all pose the same risks of

releases due to structural instability and of leachate contaminating ground or surface water.

3. Definition of Existing CCR Landfill

EPA proposed to define an existing CCR landfill to mean a CCR landfill which was in operation on, or for which construction commenced prior to the effective date of the final rule. The proposed definition specified that a CCR landfill has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction; and either: (1) A continuous on-site, physical construction program has begun; or (2) the owner or operator has entered into contractual obligations—which cannot be cancelled or modified without substantial loss—for physical construction of the CCR landfill to be completed within a reasonable time.

In response to the proposed definition, the Agency received several comments arguing that the use of the phrase “was in operation on, or for which construction commenced prior to” would lead to confusion. Commenters contended that most units defined as CCR landfills at some point in time “were in operation” and had “commenced construction” prior to the effective date of the regulation. Commenters claimed that this definition would unnecessarily capture thousands of closed structural fill projects, including residential properties, commercial properties used by small businesses, and many recreational facilities. Furthermore, commenters doubted that EPA intended for the rule to cover all of these units and urged the Agency to clarify that closed units are excluded from the definition of existing CCR landfill.

Other commenters argued that the proposed definition of *existing CCR landfill* should be modified to include lateral expansions of operation units where such an expansion is within the site footprint of an area already approved and permitted by the state for the landfill. Commenters contended that while the proposed definition included undeveloped areas within the footprint of an approved permitted site, it also required that the construction be initiated at the site or that some type of binding contractual obligation be present. Commenters contended that the existence of a contractual obligation unfairly subjects undeveloped, yet approved permitted areas to design and operating standards for new CCR landfills based merely on the existence of a contract to commence construction. Commenters argued that such a

distinction was arbitrary and capricious and provided no practical benefit. Other commenters questioned the usefulness of requiring a contractual obligation at all. As written, the commenters argued, that the definition was vague, unenforceable, and thus, not protective of human health and the environment. Commenters reasoned that there was no definitive or generally accepted meaning for the term “substantial loss” or the term “reasonable time” and an owner or operator, sensing that these proposed rules may be passed, could sign a contract now with minimum predetermined cancellation or modification penalties and a contract term of say five years or even longer to avoid the new unit requirements, *i.e.*, a composite liner.

The commenters are correct that EPA did not intend to cover inactive landfills under this rule. The Agency agrees that, as drafted, the proposed definition could cause confusion. EPA therefore deleted the phrase “was in operation on the effective date of the rule” and has substituted the phrase “that receives CCR both before and after [the effective date of the rule].” EPA also agrees that the phrase “commenced construction prior to the effective date of the rule” could similarly cause confusion. Therefore, the Agency has made a similar revision, by adding the phrase “and receives CCR on or after [the effective date of the rule]” after the phrase “for which construction commenced prior to [the effective date of the rule].” These revisions will clarify which units are covered by the technical requirement of the rule and alleviate any confusion. EPA is also making conforming modifications to the definition of *existing CCR surface impoundment*.

EPA disagrees that lateral expansions should be considered to be “existing” based solely on the fact that such an expansion is within the site footprint of an area already approved and permitted by the state. EPA has frequently distinguished between the types of requirements applicable to new and existing units, reasoning that in many instances, risk mitigation measures would be adequate such that existing units need not wholly retrofit to meet the new “state of the art.” For new units, however, the balance is generally struck in favor of requiring a greater degree of risk prevention, rather than relying solely on risk mitigation measures. In determining whether a unit is “new” or “existing,” EPA has historically considered that the equities lie in favor of considering a unit to be “existing” when there has been an irretrievable commitment of resources

on the part of the facility. That has not occurred merely because permits have been obtained. While admittedly resources have been committed, at this stage modifications to the design and construction of the unit are still feasible. Specifically, the critical differences between the requirements applicable to new and existing CCR landfills are the type of liner that must be installed and the location restrictions that apply. Compliance with these requirements can be addressed through modifications to the design and construction of the unit, and are therefore readily feasible until construction has begun.

EPA agrees with those commenters who were concerned that the phrase, “the owner or operator has entered into contractual obligations—which cannot be cancelled or modified without substantial loss—for physical construction of the CCR landfill to be completed within a reasonable time,” is vague and potentially subject to abuse. While this phrase has been included in other EPA regulations, those regulations operate within a regulatory program overseen by a regulatory authority. No similar guarantee exists under these regulations. EPA could not discover a definitive or generally accepted meaning for the terms “substantial loss” or “reasonable time,” or develop sufficiently objective and determinate criteria for these concepts. Consequently, the Agency has decided to remove this provision from the definition of *existing CCR landfill*. EPA is retaining the two most important elements of the definition that will effectively determine whether the facility has irretrievably committed resources such that it would not be reasonable to require compliance with all of the requirements applicable to new units. Accordingly, a unit will be considered to be existing if, first, the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction; and second, that a continuous on-site, physical construction program has begun (*i.e.*, groundbreaking has occurred). Therefore, EPA is finalizing the definition of *existing CCR landfill* that can be found in § 257.53.

4. Definition of Existing CCR Surface Impoundment

EPA proposed to define an *existing CCR surface impoundment* to mean a surface impoundment which was in operation on, or for which construction commenced prior to the effective date of the final rule. The proposal also specified that a CCR surface impoundment has commenced

construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction; and either: (1) A continuous on-site, physical construction program has begun; or (2) the owner or operator has entered into contractual obligations—which cannot be cancelled or modified without substantial loss—for physical construction of the CCR landfill to be completed within a reasonable time.

EPA received many of the same comments on the definition of an existing CCR surface impoundment that were received on an existing CCR landfill. This included comments requesting clarification that the term did not include impoundments that had ceased receiving CCR before the effective date of the rule. Commenters also suggested that EPA modify the definition to include the phrase that the surface impoundment “was in operation and had not yet ceased receiving CCR prior to the effective date of the rule” to make clear that the definition did not encompass units that are no longer receiving CCR on the effective date of the rule, even though the unit may not have completed final closure prior to the rule’s effective date. Commenters reasoned that units no longer receiving CCR on the effective date of the rule are not “in operation” and therefore should not be subject to the standards applicable to active units. Commenters also requested that EPA clarify that the definition of “existing CCR surface impoundment” include units that were in operation on the effective date of the rule and that periodically dredged out during the operating life of the impoundment. Commenters contended that while this may seem self-evident, EPA needed to clarify that these impoundments would not be characterized as “new CCR surface impoundments.”

The Agency is generally conforming the definition of an existing CCR surface impoundment to the revised definition of an existing CCR landfill. Although inactive CCR surface impoundments are covered by the final rule (unlike inactive CCR landfills), EPA decided it would provide greater clarity to establish a section specific to inactive CCR surface impoundments rather than merely including such units within the definition of an existing CCR surface impoundment. As discussed in greater detail in Unit VI.A of this document, under § 257.100, any CCR surface impoundment that continues to impound CCR and water after the effective date of the rule, must either (1) breach, dewater, and place a cover on the unit within three years or (2) must

comply with all of the requirements applicable to existing CCR surface impoundments. Without the need to account for inactive CCR surface impoundments within the definition, the definitions of “existing” landfills and surface impoundments should be the same.

Thus, the Agency has removed the term “in operation” from the definition and has instead focused on when the surface impoundment received or will receive CCR. EPA has also deleted the provision that would have allowed a unit to be considered to be “existing” based on the existence of a contract. Accordingly, for purposes of this rule, a CCR surface impoundment will be considered to be “existing” if the unit received CCR both before and after the effective date of the rule. For example, if a CCR surface impoundment received CCR prior to the effective date and was in the process of dredging on the effective date with the intent of receiving additional CCR after the effective date, the unit would still be considered to be an “existing” rather than a new unit. Conversely, if a unit received CCR prior to the effective date and was no longer receiving CCR, this unit would be considered “inactive,” and would only be subject to the technical criteria applicable to “existing” CCR surface impoundments if they had not completed closure within three years. Similarly, if a CCR surface impoundment had commenced construction prior to the effective date with the intention of receiving CCR on or after the effective date of the rule, the unit would be considered an “existing” unit only if the physical construction program had begun (e.g., groundbreaking had occurred) with the appropriate federal, state and local approvals or permits in place. But if prior to the effective date of the rule, the permits had been obtained but the physical construction of the unit had not begun (e.g., groundbreaking had not occurred), the unit would be considered “new” and would be subject to all the applicable technical criteria for new CCR surface impoundments. Therefore, the Agency is finalizing the definition of *existing CCR surface impoundment* that can be found in § 257.53.

C. Location Restrictions and Individual Location Requirements

In the proposed rule, EPA stated that any RCRA subtitle D regulation would need to ensure that CCR landfills, CCR surface impoundments and all lateral expansions were appropriately sited to ensure that no reasonable probability of adverse effects on health or the environment from the disposal of CCR

would occur. Under the subtitle D option, EPA proposed location restrictions for CCR units which included requirements relating to the placement of CCR in five general locations: (1) Above the natural water table; (2) wetlands; (3) fault areas; (4) seismic impact zones; and (5) unstable areas. The proposed requirements relied in large measure, on the record EPA developed to support the 40 CFR part 258 requirements for MSWLFs and on EPA’s Guide for Industrial Waste Management (EPA530-R-03-001, February 2003). EPA also chose to add one additional location restriction that would ban the placement of CCR units within two feet of the upper limit of the natural water table. This proposed requirement was originally included in the proposed rule, *Standards for the Management of Cement Kiln Dust* (64 FR 45631, August 20, 1999) because of the potential damage to groundwater caused by the management of cement kiln dust at sites located below the natural water table. While the proposed cement kiln dust rule has not yet been finalized, EPA extended this reasoning to CCR by applying the same location restriction to CCR units. The proposed applicability of these location requirements varied depending on whether the unit was an existing or new CCR landfill, an existing or new CCR surface impoundment, or a lateral expansion of such units. For example, for existing CCR landfills, the Agency proposed that only the location requirement for unstable areas would apply. By contrast, the proposed rule applied all of the location restrictions to new CCR landfills and all CCR surface impoundments, both existing and new—an approach consistent with RCRA subtitle C and Congressional distinctions between the risks presented by landfills and surface impoundments. (See 75 FR 35198–35199.) This meant that owners or operators would need to close existing CCR surface impoundments located less than two feet above the natural water table, or for existing CCR units in sensitive but not prohibited locations, make a technical demonstration that the unit met the requirements of a performance standard that serves as the alternative to the location restriction, retrofit the unit so that it could meet the performance standard, or close. For those CCR units that need to close (i.e., owners or operators that could not make the necessary technical demonstrations), EPA proposed that the unit must close within five years of the effective date of the rule. If closure could not occur within the five year timeframe, the

Agency proposed allowing for a case-by-case extension for up to two more years if the facility demonstrated that there was no alternative disposal capacity and no immediate threat to health or the environment.

EPA proposed not to impose all of the location requirements on existing CCR landfills based on the conclusion that CCR landfills pose less risk and are structurally less vulnerable than existing CCR surface impoundments. EPA also raised concern that a significant number of these CCR landfills could be located in areas subject to these requirements, (particularly wetlands), which could cause disposal capacity shortfalls in certain regions of the U.S., if existing CCR landfills in these locations were required to close. Disposal capacity shortfalls can pose significant environmental and public health concerns based on the potential for significant disruption of solid waste management state-wide from the closure of these units. EPA concluded that these risks would be greater than the potential risks from allowing existing CCR landfills to remain in these locations, given that these units would be subject to all of the design and operating requirements of the rule. To ensure the accuracy of its preliminary conclusions, the Agency requested commenters to provide any available information regarding the number of existing CCR landfills located in these sensitive areas. The Agency also sought information regarding the extent to which CCR landfill capacity would be affected by applying all of the location restrictions to existing CCR landfills, the extent to which facilities could comply with the proposed performance standards, and the costs that would be incurred to retrofit existing CCR landfills to meet these standards.

The Agency received numerous comments in response to the Agency's request for additional information regarding the extent to which landfill capacity would be affected by applying all the proposed subtitle D location restrictions to existing CCR landfills. Commenters generally agreed with the Agency that applying the other location restrictions to existing CCR landfills would cause a significant decrease in disposal capacity across the country, although they did not provide any data or information which would support this concern. Commenters noted, however, that if existing CCR landfills located in these areas were to close, it would greatly complicate operations at many utilities. Affected facilities would need to find additional disposal capacity, which would require utilities

to procure new real estate on which to site a new CCR landfill (which may be a significant distance from a power plant), obtain a new disposal permit for the CCR landfill (which can take an extended period of time), and potentially transport significant volumes of CCR great distances to newly-permitted facilities. Commenters argued that there was simply no environmental basis for causing this level of disruption to utility CCR disposal practices.

EPA received no data or information in response to the Agency's request for the costs associated with retrofitting a CCR surface impoundment or CCR landfill to meet the demonstrations for existing units. Similarly, the Agency received little to no information in response to EPA's request for additional information on the location of these facilities. Some commenters acknowledged that specific states were located in some of these restricted areas but did not provide specific information on specific units.

Overwhelmingly, the issue receiving the most comment was EPA's intention to subject existing CCR surface impoundments to all of the new location criteria. Commenters contended that subjecting existing units to all of the location criteria was a radical departure from the location restriction provisions of the existing MSWLF rules on which the subtitle D option is based (*i.e.*, existing MSWLFs are only subject to the floodplains and unstable areas restrictions) without any justification for regulating CCR surface impoundments more stringently than existing CCR landfills. Commenters argued that EPA must demonstrate that there are increased risks posed by each CCR surface impoundments based on its location; otherwise, they claimed, there was no justification for EPA to subject CCR surface impoundments to more stringent location restrictions. Some commenters suggested that a more reasonable approach would be to limit the restrictions for existing CCR surface impoundments to unstable areas, consistent with the approach proposed for existing CCR landfills. Finally, commenters raised concern about the inconsistency between the preamble language and the corresponding regulatory text. Specifically, the preamble stated EPA's intention to apply all of the location criteria to all CCR surface impoundments (existing and new) while the proposed regulatory language applied all location criteria only to new CCR surface impoundments and lateral expansions.

1. Applicability of the Location Criteria to Existing CCR Surface Impoundments

EPA acknowledges the discrepancies between the preamble language and the regulatory text regarding the proposed regulatory language for the location restrictions as it applies to existing CCR surface impoundments. In the proposed rule, the regulatory language should have included, "all surface impoundments" as opposed to only "new surface impoundments."

EPA disagrees that in order to justify national minimum standards applicable to existing CCR surface impoundments, the Agency must demonstrate an adverse impact to human health and the environment from each individual unit, based on the specific risks posed at each location. As an initial matter, it is well established that an agency may regulate a class of similarly situated entities through rulemaking, rather than on the basis of an individualized assessment of every entity that will be subject to the rule. And indeed, Congress specifically directed EPA to proceed by rulemaking to establish minimum national standards under RCRA sections 1008(a) and 4004(a). Moreover, section 4004(a) does not require a demonstration of actual impacts, merely that these units present an unacceptable *risk* of harm. Thus, it is sufficient for EPA to establish a factual record demonstrating that the specific location restrictions in the final rule are necessary for CCR units (landfills and surface impoundments), as a class, to ensure that there will be no reasonable probability of adverse effects on health or the environment. As discussed in greater detail in the next section and in Unit X of the preamble, the factual record supports the need for all of the location standards for existing CCR surface impoundments imposed by this rule.

The Agency also rejects the suggestion that EPA establish the same location restrictions for both existing CCR landfills and CCR surface impoundments. As laid out in the proposal and elsewhere in this final rule in greater detail, the risks associated with CCR surface impoundments are substantially higher than the risks associated with CCR landfills, by approximately an order of magnitude. Surface impoundments are utilized by 45 percent of coal-fired power plants and in 2000 accounted for disposal of one-third of all CCR generated.⁴⁶ Unlike landfills, CCR surface impoundments

⁴⁶ Rowe, C.L., Hopkins, W.A., Congdon, J.D., 2002. Ecotoxicological Implications of Aquatic Disposal of Coal Combustion Residues in the United States: A Review. Environmental Monitoring and Assessment, Vol. 80, pp. 207-276.

contain slurried residuals that remain in contact with ponded waters until closure. In a statewide investigation of impacts to groundwater quality from CCR disposal sites, the Wisconsin Department of Natural Resources reported that closed sites which originally contained sluiced coal-combustion residuals displayed extremely elevated mean arsenic levels (as high as 364 µg/l).⁴⁷ The highest contaminant concentrations in the study were associated with sluiced CCR residuals. In addition, releases of toxic contaminants to surface water and groundwater from mostly unlined CCR surface impoundments and ponds are a relevant factor in 34 of 40 cases of proven damage to the environment (as well as in several cases of “potential” damage to the environment) from mismanagement of CCR.⁴⁸ In many of these cases, effluent discharges from the surface impoundments caused significant ecological damage to aquatic life in nearby streams and wetlands. In one case, in 2002, the structural stability of a CCR surface impoundment was directly compromised by sinkhole development, leading to the release of 2.25 million gallons of CCR slurry. In another, an unusually weak foundation of ash and silt beneath a CCR surface impoundment (*i.e.*, man-made unstable ground) was identified as one of several likely factors contributing to the dike failure that in 2008 resulted in the largest CCR spill in United States history.

Unlike RCRA subtitle C, subtitle D does not explicitly authorize EPA to establish different standards for existing and new units, and Congress specifically intended subtitle D to address the risks from existing, abandoned “open dumps.” In the proposed rule preamble, EPA explained the rationale for applying these provisions to existing CCR surface impoundments, and the commenters have submitted nothing to rebut that rationale. Thus, EPA maintains its determination that application of the location standards to existing CCR surface impoundments is necessary to achieve the standard in section 4004(a). Absent these location restrictions, the risk of impacts to human health and the environment from releases from CCR

units, including from the rapid and catastrophic destruction of CCR surface impoundments, sited in these sensitive areas would exceed acceptable levels. Given that the risks associated with CCR surface impoundments are substantially higher than the risks posed by CCR landfills, this is the appropriate regulatory course for existing CCR surface impoundments.

In this rule, EPA is finalizing location restrictions that will ensure that CCR units are appropriately sited, that the structure of the CCR unit will not be adversely impacted by conditions at the site, and that overall there will be “no reasonable probability of harm to human health or the environment” due to the location of the CCR unit. EPA is finalizing different sets of location restrictions depending on whether the unit is a CCR landfill or CCR surface impoundment and whether it is an existing or new unit. Lateral expansions fall within the definitions of new units and are treated accordingly. These standards provide minimum national siting and performance criteria for all CCR units. The location restrictions under § 257.60 through § 257.64 include: (1) Placement above the uppermost aquifer; (2) wetlands; (3) fault areas; (4) seismic impact zones; and (5) unstable areas. Each of these locations is generally recognized as having the potential to impact the structure of any disposal unit negatively and as such, increase the risks to human health or the environment through structural failures or leaching of contaminants into the groundwater. Under the final rule and as proposed, new CCR landfills, existing and new CCR surface impoundments, and all lateral expansions will be required to comply with all of the location restrictions. Existing CCR landfills however, will be subject to only two of the location restrictions—floodplains, and unstable areas. As noted in the proposed rule, and restated here, existing landfills and surface impoundments are already subject to the location standards in subpart A of 40 CFR part 257 for floodplains, endangered species and surface waters. The final rule does not change this requirement, and so facilities should already be in compliance. The Agency is finalizing, as proposed, the unstable area location restriction for existing CCR landfills because the record clearly shows that failure of CCR units in these areas (*e.g.*, due to instabilities in Karst terrains) have and in all likelihood would continue, in the absence of the restrictions in the final rule, to result in damage caused by the release of CCR

constituents, affecting both groundwater and surface waters. As the Agency stated in the proposed rule, the impacts resulting from the failure of CCR units from location instability are of far more concern than any disposal capacity concerns resulting from the closure of existing CCR units in unstable areas.

Conversely, and also consistent with the proposed rule, EPA is not applying the following location restrictions to existing CCR landfills: The requirement to construct a unit with a base located no less than 1.52 meters (five feet) above the upper limit of the uppermost aquifer, as well as the siting restrictions applicable to wetlands, fault areas, and seismic impact areas. Existing CCR landfills pose lower risks and are structurally less vulnerable than existing CCR surface impoundments. In addition, disposal capacity shortfalls, which could result if existing CCR landfills in these locations were required to close, raise greater environmental and public health concerns than the potential failure of the CCR landfills in these locales.

2. Placement Above the Uppermost Aquifer

Under § 257.60(a) EPA is requiring new CCR landfills, existing and new CCR surface impoundments and all lateral expansions to be constructed with a base that is located no less than 1.52 meters (five feet) above the uppermost aquifer, or to demonstrate that there will not be an intermittent, recurring, or sustained hydraulic connection between any portion of the base of the CCR unit and the uppermost aquifer due to normal fluctuations in groundwater elevations (including groundwater elevations during the wet season). Existing surface impoundments that fail to achieve this standard must close. New CCR landfills, new CCR surface impoundments and all lateral expansions of existing and new CCR landfills and CCR surface impoundments cannot be constructed unless they meet one of these two standards. In response to comment, the Agency has modified the criteria in two ways. First, EPA has replaced “a base that is located a minimum of two feet above the upper limit of the natural water table” with “a base no less than 1.52 meters (five feet) above the uppermost aquifer.” EPA received comment explaining that fluctuations in groundwater levels in many geological settings can exceed ten feet over the course of the year, and alleging that the proposed two foot minimum buffer between the base of the unit and the top of the water table would therefore be insufficiently protective. The

⁴⁷ Zillmer, M. and Fauble, P., 2004. Groundwater Impacts from Coal Combustion Ash Disposal Sites in Wisconsin. Waste & Materials Management, Wisconsin Department of Natural Resources, PUB-WA 1174 2004.

⁴⁸ Cases of damage attributable to disposal of coal combustion residuals are summarized in the appendix to the preamble of the proposed rule, 75 FR 35230–35239, June 21, 2010, and can be found in the RCRA Docket.

commenter recommended that the minimum vertical separation be at least three to five feet from the base of the liner components. After additional research, EPA is finalizing a minimum buffer of five feet instead of two feet. EPA's research confirmed the commenter's claims. In addition, EPA determined that several states consider five feet between the base of the surface impoundment and the top of the uppermost aquifer to be the minimum distance that is protective of human health and the environment. These are California, Michigan, Nebraska, New York, West Virginia, and Wisconsin. The Agency has concluded from geographic and climatic spacing of these states that the hydrogeologic conditions within them encompass the range of conditions found in the United States. Therefore, EPA is finalizing a minimum buffer of five feet instead of two feet.

EPA is also clarifying the definition of the natural water table. As some commenters noted, there are many factors (hydrologic and geologic settings, nearby pumping, etc.) that influence the location of the groundwater table making it difficult to determine the "natural" level. In addition, as noted, local site-specific hydrogeologic conditions within the aquifer may cause the natural groundwater table to exceed five feet and vary as much as ten feet. To account for the possibility of such large seasonal fluctuations, EPA is revising the definition of "uppermost aquifer" to specify that the measurement of the upper limit of the aquifer must be made at a point nearest to the natural ground surface to which the aquifer rises during the wet season. This definition of "uppermost aquifer" will encompass large seasonal variations, and is a more appropriate parameter than "seasonal high groundwater table" as suggested by several commenters and the proposed "natural water table" because it is more clearly defined.

In § 257.60(a) the term *uppermost aquifer* has the same definition as under the general provisions of § 257.40: The geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary. This definition includes a shallow, deep, perched, confined or unconfined aquifer, provided it yields usable water. Although EPA originally proposed that all CCR surface impoundments be located ". . . above the upper limit of the natural water table", the Agency is amending this requirement and replacing "water table" with "uppermost aquifer" to make it

consistent with the way natural underground water sources are described elsewhere in the rule. EPA made a second revision to the criteria that were originally proposed. As an alternative to requiring that the CCR units described in this section be constructed with a base that is located no less than five feet above the uppermost aquifer, owners and operators may instead demonstrate that there will not be an intermittent, recurring, or sustained hydraulic connection between any portion of the base of the CCR unit and the uppermost aquifer due to normal fluctuations in groundwater elevations (including groundwater elevations during the wet season).

This alternative standard was developed in response to concerns from commenters that a single depth to the aquifer failed to account for the wide variations in the level of water table fluctuations in different regions of the country. For example, arid regions of the country, such as Arizona, under normal conditions generally do not experience the same degree of fluctuations in groundwater elevations as more temperate regions, such as Minnesota. Accordingly, EPA developed an alternative performance standard focused on the conditions identified in the damage cases and the risk assessment that this location criterion was designed to prevent: Specifically, where the groundwater elevation is high enough to intersect the base of the waste management unit. In such situations, this hydraulic connection can enhance the transport of contaminants of concern from the CCR unit into groundwater. By requiring owners and operators to ensure that these conditions do not occur, the alternative standard to allow owners and operators to account for situations where there are relatively small variations in groundwater levels and a buffer of five feet is not necessary. This will also ensure that a CCR unit need not address situations where an infrequent, unexpected event (e.g., hurricane) could cause a brief, temporary condition where the uppermost aquifer rises to less than the prescribed five feet but which would not in and of itself constitute a long-term threat to the aquifer. However, where normal fluctuations in groundwater elevation (including, but not limited to, seasonal or temporal variations, groundwater withdrawal, mounding effects,⁴⁹ etc.) will result in

⁴⁹ A phenomenon usually created by the recharge of groundwater from a manmade structure, such as a surface impoundment, into a permeable geologic material, resulting in outward and upward

the failure of the unit to meet the performance standard (i.e., no intermittent, recurring, or sustained hydraulic connection between the base of the CCR unit and the uppermost aquifer), the unit must close.

In some recent damage cases, placement of large volumes of CCR into highly permeable strata in the disposal area promoted CCR-water interactions. For example, from 1995 to 2006 in Anne Arundel County, Maryland 4.6 million tons of CCR were placed directly in two sand and gravel quarries without a geomembrane liner or leachate collection system. Rainwater infiltration into exposed CCR coupled with groundwater-CCR interactions and the transmissivity characteristics of local strata contributed to rapid migration of heavy metals, including antimony, arsenic, cadmium, nickel, and thallium to residential drinking water wells located near the mine pits and significant deterioration of water quality as a result of placement of CCR. Similarly, from 1980 to 1997 in Lansing, Michigan, around 0.5 million tons of coal ash was dumped for disposal into a gravel pit with an elevated water table. A remedial investigation has established that groundwater mounding has immersed the CCR into the upper aquifer resulting in on-site exceedances of groundwater quality protection standards for sulfate, manganese, lead, selenium, lithium, and boron. Placement of CCR into un-engineered, unlined units in permeable strata has plainly led to adverse impacts to groundwater. The phrase "normal fluctuations" has been used to clarify that EPA does not intend for the facility to account for extraordinary or highly aberrant conditions (e.g., one-in-a-million or "freak" events). Normal fluctuation can include those resulting from natural as well as anthropogenic sources. Natural sources that could affect groundwater levels include, but are not limited to precipitation, run-off, and high river levels. Anthropogenic sources that could affect groundwater levels include groundwater withdrawal, pumping, well(s) abandonment, and groundwater mounding. In satisfying this location restriction, it may be necessary for a professional engineer to model these effects before he can make the necessary certifications.⁵⁰ EPA also

expansion of the free water table. Mounding can alter groundwater flow rates and direction; however, the effects are usually localized and may be temporary, depending upon the frequency and duration of the surface recharge events.

⁵⁰ For example, evaluations can be done to estimate groundwater mounding such as pubs.usgs.gov/sir/2010/5102/, www.groundwatersoftware.com/calculator_9_

notes that this modeling may include the same considerations already evaluated under some state programs.⁵¹ EPA expects that owners and operators will have sufficient information to determine whether their CCR unit meets either performance standard. Most, if not all, of this information would be information a facility would typically have as part of normal operations (*e.g.*, the depth of the CCR unit itself), or that will be developed as part of implementing other rule requirements. For example, through the groundwater monitoring system required under §§ 257.90–257.98, the facility can obtain water level measurements in a sufficient number of locations (*e.g.*, monitoring wells, piezometers) to use in determining whether they satisfy either performance standard. Similarly, under § 257.91 a thorough characterization of the geology and hydrogeology of the site must be conducted. Finally, EPA notes that available technology and guidance are available for using existing groundwater monitoring wells, like those required under this final rule, to measure groundwater levels.⁵²

3. Wetlands

In § 257.61 of this rule, EPA is finalizing the regulatory text essentially as proposed. Specifically, EPA is adopting a prohibition on locating all CCR surface impoundments and new CCR landfills, as well as lateral expansions of existing CCR units, in wetlands as defined in 40 CFR 232.2, absent specific demonstrations made by the owner or operator that ensure the CCR unit will not degrade sensitive wetland ecosystems. These provisions place the burden of proof for these demonstrations directly on the owner or operator (the discharger). The owner or operator must make the results of these demonstrations available in the facility record. Failure to make any of the demonstrations will bar siting of the CCR unit in a wetland.

In 2003, disposal of CCR in natural or man-made aquatic basins accounted for nearly one-third of all CCR land disposal. Historically, aquatic disposal of CCR has been attractive economically to facilities because of its lower overall cost relative to dry management and the ease of handling of residuals. During

aquatic disposal, CCR is commonly piped as a slurried mixture to surface impoundments designed to retain the solids in contact with water for the life of the unit. Particulate solids from the waste stream gravitationally settle while clarified waters ultimately discharge into nearby streams and wetlands.

The term ‘wetlands’ refers to those areas inundated or saturated by surface or groundwater at a frequency and over a duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include marshes, swamps, bogs and similar areas that are commonly located between open water and dry land. Under the CWA, wetlands are considered ‘special aquatic sites’ deserving of special protection because of their ecologic significance. Wetlands are very important, fragile ecosystems that must be protected, and EPA has long identified wetlands protection as a high priority.

Undisturbed, natural wetlands provide many benefits to society by improving water quality, providing essential breeding, rearing, and feeding grounds for fish and wildlife, reducing shoreline erosion, and absorbing flooding waters and pollution. Wetlands are also commercial source areas of products for human use such as timber, fish, and shellfish. Recreational hunters harvest wetland-dependent waterfowl. Wetland environments, however, may be adversely impacted by releases of wastes from co-located industrial facilities. Wetland ecosystems can be degraded by accidental discharges that can change the habitat value for fish and wildlife by obstructing surface water circulation patterns, altering substrate elevation, dewatering, or permanent flooding.

In support of the provisions finalized in this rule, EPA is citing several damage cases, including 30 cases of “proven” damage to the environment that involve aquatic disposal of CCR, 14 of which involve impacts to wetlands from release of CCR. For example, at the Hyco Reservoir in Roxboro, North Carolina from 1966 to 1990 the lake received contaminated effluent from coal ash disposal basins that were authorized by National Pollutant Discharge Elimination System (NPDES) permits under the CWA. High levels of the trace element selenium bioaccumulated in aquatic food chains (phytoplankton), poisoning invertebrates and fish in the lake, particularly species of sport fish (bluegill, largemouth bass), causing reproductive failure and severe declines in fish populations in the late 1970’s and early 1980’s. Consequently, from

1988–2001 the North Carolina Department of Health and Human Services (NCDHHS) issued a consumption restriction advisory for selenium contamination in fish from the reservoir. In 1990, a dry ash handling system was implemented resulting in lower selenium discharge and reduced mean selenium concentration in reservoir waters. As of 2005, concentrations of selenium in fish tissues remained above a toxic threshold even with reduced influx of selenium, due to migration of the element from contaminated sediments to benthic food chains. The total monetized value of damage can be divided among ecologic factors (*e.g.*, major impacts on fish), recreational factors (*e.g.*, fishing trips not taken), depreciated real estate values, aesthetic factors, and human health damages (*e.g.*, losses due to stress and anxiety from knowing ecosystem is poisoned) and is estimated at \$877 million.⁵³

Although this consideration is not relevant for purposes of establishing the minimum national criteria under RCRA sections 1008(a) and 4004(a), the rulemaking record demonstrates that the monetary cost of environmental damage from releases of CCR at surface impoundments could be considerable. A report on the environmental damage caused by releases of CCR at 22 sites estimates the total cost of poisoned fish and wildlife at the surface impoundment sites at \$2.32 billion. At twelve of these sites the releases were legally permitted under the CWA. Five of the 22 cases were caused by structural failures, two resulted from an unpermitted discharge, and one was from a landfill.⁵⁴ Effluent contaminated with coal combustion residues is directly linked with high loadings of toxic metals in the discharge areas of aquatic basins, where some metals (primarily arsenic, cadmium, chromium, copper, lead, and selenium) have accumulated in aquatic food chains.⁵⁵ In a research overview (literature synthesis) on the environmental effects of disposal of CCR, Rowe et al. (2002) listed adverse biological responses, including histopathological, behavioral, and physiological (reproductive, energetic, and endocrinological) effects, that have been observed in some vertebrates and invertebrates following exposure to and bioaccumulation of CCR-related contaminants.

Under the criteria finalized in this rule, in order to locate a CCR unit or

[hantush_mounding.htm](#), and [www.ndwrmdp.org/documents/wu-ht-02-45/wuht0245_electronic.pdf](#).

⁵¹ See, *e.g.*, [dnr.wi.gov/topic/stormwater/standards/gw_mounding.html](#).

⁵² See, *e.g.*, U.S. EPA (Environmental Protection Agency). 2013. Groundwater Level and Well Depth Measurement. SESDPROC-105-R2. Region 4. Athens, GA. Available online at: [www.epa.gov/region4/sesd/fbqstp/Groundwater-Level-Measurement.pdf](#).

⁵³ Lemly, A.D. 2010. Op.cit.

⁵⁴ Lemly, A.D.2010. Op. cit.

⁵⁵ Rowe, C.L. et. al. 2002. Op. cit.

lateral expansion in a wetland, the owner or operator must: (1) Successfully rebut the presumption that an alternative site (*i.e.*, one that does not involve a wetland) is reasonably available for the CCR unit or lateral expansion; (2) show that the construction or operation of the unit will not cause or contribute to violations of any applicable state water quality standard, violate any applicable toxic effluent standard or prohibition, jeopardize the continued existence of endangered or threatened species or critical habitats, or violate any requirement for protection of a marine sanctuary; (3) show that the CCR unit or lateral expansion will not cause or contribute to significant degradation of wetlands; and (4) demonstrate that steps have been taken to attempt to achieve no net loss of wetlands.

In addition to these requirements, other federal laws may be applicable in siting a CCR unit in a wetland. These include: Sections 401, 402, and 404 of the CWA; the Rivers and Harbors Act of 1989; the National Environmental Policy Act; the Migratory Bird Conservation Act; the Fish and Wildlife Coordination Act; the Coastal Zone Management Act; the Wild and Scenic Rivers Act; and the National Historic Preservation Act. In addition, the use of a wetlands location for a CCR unit may require a permit from the U.S. Army Corps of Engineers. To the extent these are applicable, compliance with these RCRA criteria does not alleviate the need to comply with these other federal requirements, and the owner or operator of the facility remains responsible for ensuring compliance with all applicable federal and state requirements.

The rule adopts a regulatory presumption that a less damaging alternative to locating a disposal unit in a wetland exists, unless the owner or operator can demonstrate otherwise. Thus, when proposing to locate a new facility or lateral expansion in a wetland, owners and operators must be able to demonstrate that alternative sites are not available and that the impact to wetlands is unavoidable. If this presumption is not clearly rebutted, then the CCR unit may not be sited in a wetland location. Such an analysis necessarily includes a review of reasonable alternatives to locating or laterally expanding CCR units in wetlands. As part of the evaluation of reasonable (that is, available and feasible) alternatives the owner or operator must show, and a qualified professional engineer must verify, that operation or construction of the CCR unit will not: (1) Violate any applicable state water quality standards; (2) cause

or contribute to the violation of any applicable toxic effluent standard or prohibition; (3) cause or contribute to violation of any requirement for the protection of a marine sanctuary; and jeopardize the continued existence of endangered or threatened species or critical habitats.

When evaluating the impacts of a CCR unit on a wetland, the owner or operator must ensure that the unit cannot cause or contribute to significant wetland degradation. Therefore, the owner or operator and the qualified professional engineer must: (1) Verify the integrity of the CCR unit, and its ability to protect ecological resources by addressing the erosion, stability, and migration potential of native wetland soils, and dredged and fill materials used to support the unit; (2) verify that the design and operation of the CCR unit minimizes impacts on fish, wildlife, and other aquatic resources and their habitat(s) from any release of coal combustion residuals; (3) evaluate the effects of catastrophic release of CCR to the wetland and the resulting impacts on the environment; and (4) verify that ecological resources in the wetland are sufficiently protected, including consideration of the volume and chemistry of the CCR managed in the unit; and any additional factors, as necessary.

When a wetland functions properly, it provides water quality protection, fish and wildlife habitat, natural floodwater storage, and reduction in the erosive potential of surface water. A degraded wetland is less able to effectively perform these functions. For this reason, wetland degradation is as big a problem as outright wetland loss, though often more difficult to identify and quantify. Any change in hydrology can significantly alter the soil chemistry and plant and animal communities. The common hydrologic alterations that can lead to significant degradation in wetland areas include: (1) Deposition of fill material, including CCR; (2) drainage for development; (3) dredging and stream channelization for development; (4) diking and damming to form ponds or impoundments; (5) diversion of CCR-bearing waters or other flows to or from wetlands; (6) addition of impervious surfaces in the watershed, thereby increasing water and CCR-bearing runoff into wetlands. These activities can mobilize CCR-bearing sediment; and once the sediment is discharged into the environment, toxic metals in CCR can become available to organisms within the wetland. Consequently, while the mere presence of one or more of these activities does not necessarily demonstrate that the CCR unit causes or

contributes to significant degradation, the fact that they may do so means these activities need to be carefully evaluated.

In determining what constitutes "significant" degradation, it is important to understand that although wetlands are capable of absorbing pollutants from the surface water, there is a limit to their capacity to do so. For the purposes of this rule, the primary pollutants of concern are CCR-bearing sediment and toxic metals. Although the risk assessment did not assess the exposure and hazard to wetlands, these can originate from uncontrolled run-off from the facility, fugitive dust from uncovered CCR landfills and piles, and uncontrolled discharge from CCR units (landfills, waste piles, surface impoundments). A clear example of biologically significant degradation in wetlands is when these toxic metals accumulate in benthic and aquatic food chains as a result of uncontrolled runoff. Another is obrution (smothering) of benthic organisms from discharge(s) of CCR to surface water, thereby jeopardizing the continued existence of organisms or critical habitats within the wetland. EPA notes that there are other requirements established under this rule that can also be relevant in this context, as they have the potential to reduce the likelihood that facility operations will cause or contribute to significant wetland degradation. EPA anticipates that as the facility begins to implement all of the requirements under this rule, the facility will consider how modifications to facility operations to address one requirement can affect compliance with other requirements.

After consideration of these factors, if an existing CCR unit cannot meet all of the requirements in paragraphs (1)–(3) (*i.e.*, if it causes or contributes to significant degradation, or if no reasonable alternative to locating a new CCR unit in wetlands is available), the facility can comply with the location criterion by compensatory steps that must be taken to achieve no net loss of wetlands (as defined by acreage and function). Owners or operators must first take measures to avoid impacts to wetlands. If potential impacts cannot be avoided, all reasonable steps are to be taken to minimize such impacts to the extent feasible. Appropriate measures (for example, engineered containment systems to control discharge of leachate or surface water run-off to wetlands) will likely be site-specific and should be incorporated into the design and operation of the CCR unit. Any remaining unavoidable impacts must be offset, or compensated for through all appropriate and feasible compensatory mitigation actions. This compensatory

mitigation may take the form of restoration (re-establishment or rehabilitation of a wetland), establishment (creation of a man-made wetland where one did not previously exist), enhancement (improving one or more wetland functions), and preservation (permanent protection of important wetlands through implementation of appropriate legal and physical mechanisms). The functions and values of a wetland will vary based on any number of site specific characteristics, including location, wetland type, hydrology, degradation, and whether it is natural or constructed to treat waste. Strictly limited to the application of the wetlands location requirements under this rule, any assessment of the nature and extent of mitigation required under the CCR rule shall consider these kinds of characteristics, including wetlands designed for the treatment of CCR. The Agency recognizes that the function and value of a particular man-made wetland constructed to perform a wastewater treatment function may present a unique situation that may affect both the determination of whether the wetland is significantly degraded, and the nature and extent of any required compensatory mitigation. This discussion refers only to the wetlands-related requirements of this rule and does not affect any requirements or obligations under the Federal Water Pollution Control Act (33 U.S.C. 1251, *et seq.*) and its implementing regulations.

Although EPA is not finalizing an outright ban on siting of existing or new CCR units in wetlands, the Agency continues to believe that discharges to wetlands of pollutants that can be reasonably avoided should be avoided. Therefore, the amount and quality of compensatory mitigation may not substitute for avoiding and minimizing impacts. For purposes of this rule, EPA assumes CCR units that are designed to avoid discharge of CCR into wetlands have less adverse impact to the aquatic environment than CCR units that ultimately discharge such residuals in wetlands.

4. Fault Areas

In § 257.62 of this rule, EPA is banning the location of new CCR landfills, existing and new CCR surface impoundments, and all new lateral expansions within 60 meters (200 feet) of a fault that has had displacement in Holocene time, unless the owner or operator demonstrates that an alternative setback distance of less than 60 meters (200 feet) will prevent damage to the structural integrity of the unit. For existing surface impoundments, the

demonstration is required only if the unit is located closer than 60 meters (200 feet) to an active Holocene fault. If a demonstration cannot be made, the existing surface impoundment must close. These requirements have been adopted with only minor changes from the proposal, and will minimize the risks associated with CCR units located in fault areas.

Stresses produced during earthquake motion can cause serious damage to landfill integrity via seismically induced ground failure and associated rupture of liner systems and subsequent damage to leachate collection systems. Or if the unit is unlined, seismic motion could disrupt landfill caps and foundation soils that impede migration of percolating water. Potential damage to CCR units resulting from structures located across a fault include surface breakage, cracks and fissures between fill and confining slopes, slope failure via landslides, liquefaction-induced lateral spreading and settlement of the pile, disruption of surface water and drainage control systems, and rupture of leachate collection systems. In impoundments, for example, interior dike failure and leakage, and rupture of multilayer liner systems would also be of concern. Failure of the leachate collection system may prevent removal of generated leachate, allowing it to pond on the liner. If the liner system is ruptured, this may create a pathway for leachate to migrate into and contaminate the uppermost aquifer. In addition to the potential damage to leachate collection and liner systems, the integrity of the landfill slopes could also be impaired by fault rupture, potentially exposing coal combustion residuals to surface run-off.

The best protection is to avoid locating new CCR landfills and all CCR surface impoundments across faults and fault zones subject to displacement. For new units or lateral expansions there is no need to construct units in these areas. For existing surface impoundments, the Agency has been unable to find any way to retrofit or engineer the unit to be protective. A setback distance of 60 meters (200 feet) from the outermost damage zone of a Holocene fault will provide an adequate margin of safety to protect the facility from displacements due to surface faulting and any associated damage because 60 meters typically covers the zone of deformation where the ground may be bent or warped as a consequence of fault movement. By including this as a siting requirement for new units the risk of rupture of the unit, including any liner and leachate collection systems,

due to surface faulting will be minimized.

Observations of engineered landfill response during earthquake motion come primarily from California where field data have been reported from MSWLFs (including some meeting the current part 258 standards) affected by strong shaking from six major nearby earthquakes. In these large magnitude events ($M \geq 6.7$), bedrock peak horizontal ground accelerations, an index of the intensity of earthquake motion, endured by the landfills were in excess of 0.3g. Engineered dry MSWLFs in California are reported to have performed well after strong earthquake motion (no documented incidence of an earthquake-induced release of contaminants harmful to human health or to the environment). Minor cracking of cover soils and breaking of vertical wells and headers were among the most common types of damage reported at MSWLFs subject to strong ground shaking. In the 1994 Northridge earthquake, only one landfill compliant with RCRA Part 258 standards experienced tears in a liner (a geomembrane liquid barrier): One tear 23 meters in length. However, there is little data on seismic stability and performance from industrial solid waste landfills with geosynthetic liners or units with water-saturated CCR waste. The Agency, therefore, remains concerned over the potential instability of engineered disposal units, and particularly CCR surface impoundments, under seismic loadings. Accordingly, EPA is prohibiting new CCR landfills, CCR surface impoundments, and any new extensions from sites located within an active fault zone, unless the owner or operator makes a demonstration, certified by a qualified professional engineer, that an alternative setback distance of less than 60 meters will prevent damage to the structural integrity of the unit.

EPA is clarifying its definition of fault to incorporate updated technical information.⁵⁶ Although a fault can be thought of as a simple planar surface across which there has been measurable displacement of one side relative to the other, field-based observations show fault architecture to often be complex. In the geologic literature faults developed in the upper crust are characterized as zones of brittle deformation composed of linked fault segments, with each segment composed of one or more subparallel, curved, or anastomosing fault cores nested within

⁵⁶ Sibson, R.H. 2003. Thickness of the Seismic Slip Zone. Bulletin of the Seismological Society of America, Vol. 93, No. 3, pp. 1169–1178.

a damage zone. Some fault zones may contain broad deformational features such as pressure ridges and sags rather than clearly defined fault scarps or shear zones.⁵⁷ Fault cores are regions of high strain slip that have accommodated most of the displacement and are marked by mylonites, cataclastites, and gouge, whereas the damage zone is characterized by low strain structures mechanically related to the growth of the fault zone such as small faults, fractures, veins and folds. To avoid displacement that would damage unit integrity, it is best to restrict new CCR landfills and surface impoundments, and all new extensions, to locations no less than 60 meters from the outermost damage zone created by an active fault. Fault zones can range from one meter to several kilometers in width.

For purposes of this section, a fault is considered active if it has moved during Holocene time. Holocene time is defined as the geological epoch which began at the end of the Pleistocene, at 11,700 years BP (before present), and continues to the present. In the field, evidence for Holocene activity may be hard to obtain. Therefore, the Agency cautions that faults which show no evidence for Holocene activity may not necessarily be inactive.

To investigate active faults, EPA expects owners and operators of CCR units to follow standard engineering and geologic practices. Technical considerations include: (1) A geologic reconnaissance of the site to determine the location of active faults. Such a reconnaissance would include utilizing the seismic analysis maps and tools (Quaternary fault maps, earthquake probability maps) of the United States Geological Survey (USGS) Earthquake Hazards Program (<http://earthquake.usgs.gov/hazards/apps/>); and (2) a site fault characterization within 1000 meters of a site to determine whether it is within 60 meters of an active fault. Such characterizations would include subsurface exploration, including drilling or trenching, to locate any fault zones and evidence of faulting, trenching perpendicular to any faults or lineaments found within 60 meters of the site, and determination of the age of any displacements. Based on this information, the qualified professional engineer would prepare a report that delineates the location of any active (Holocene) fault, including any damage zones, and the associated 60 meter

setback. To take advantage of an alternative setback distance of less than 60 meters, the owner or operator must make a demonstration, certified by a qualified professional engineer, that the CCR landfill, surface impoundment, or lateral expansion has a foundation or base capable of providing support for the structure, and capable of withstanding hydraulic pressure gradients to prevent failure due to settlement, compression, or uplift, and all effects of ground motions resulting from at least the maximum surface acceleration expected from a probable earthquake.

5. Seismic Impact Zones

In § 257.63, EPA is adopting the provisions applicable to seismic impact zones, as proposed. The rule prohibits new CCR landfills, existing and new CCR surface impoundments and all lateral extensions from being located in seismic impact zones unless the owner or operator makes a demonstration, certified by a qualified professional engineer, that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material from a probable earthquake. A *Seismic impact zone* means an area having a 2% or greater probability that the maximum expected horizontal acceleration, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10 g in 50 years. Seismic zones, which represent areas of the United States with the greatest seismic risk, are mapped by the U.S. Geological Survey and readily available for all the U.S. (<http://earthquake.usgs.gov/hazards/apps/>).

Maximum Horizontal Acceleration in lithified earth material means the maximum expected horizontal acceleration at the ground surface as depicted on a seismic hazard map, with a 98% or greater probability that the acceleration will not be exceeded in 50 years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment. This requirement translates to a 10% probability of exceeding the maximum horizontal acceleration in 250 years.

For units located in seismic impact zones, as part of any demonstration, owners and operators should include: (1) A determination of the expected peak ground acceleration from a maximum strength earthquake that could occur in the area; (2) a determination of the site-specific seismic hazards such as soil settlement; and (3) a facility design that is capable of withstanding the peak ground

acceleration. Seismic designs broadly should include a response analysis to quantify the demands of earthquake motion on facility structures (*i.e.*, landfills, surface impoundments, liners, covers, leachate collection systems, surface water handling systems), liquefaction analyses of both waste and foundation soils to evaluate stability under seismic loading, and a slope stability and deformation analyses. Design modifications to accommodate seismic risks should include use of conservative design factors, use of ductile materials, built-in redundancy for critical system components, and other measures capable of mitigating the potential for seismic upset.⁵⁸

Following trends in earthquake engineering, seismic design criteria for new CCR landfills, new CCR surface impoundment and all lateral expansions should be based on a "withstand without discharge" standard.⁵⁹ EPA interprets the performance standard in this criterion ("designed to resist the maximum horizontal acceleration in lithified earth material from a probable earthquake") to require any new CCR unit located in a seismic impact zone to be designed to withstand seismic motion from a credible earthquake without damage to the foundation or to the structures that control leachate, surface drainage, or erosion. In other words, the CCR unit must be able to withstand an expected earthquake without discharging waste or contaminants. The owner or operator must make a demonstration, certified by a qualified professional engineer, that the CCR unit has a foundation or base capable of providing support for the structure, and capable of withstanding hydraulic pressure gradients to prevent failure due to settlement, compression, or uplift and all effects of ground motions resulting from at least the maximum surface acceleration expected from a probable earthquake. In practice, the Agency recognizes that the CCR unit may sustain some limited damage during an earthquake, but ultimately, the CCR unit design must remain

⁵⁸The *seismic location standard* requires a demonstration that a CCR disposal unit can withstand the stresses imposed by peak ground acceleration during earthquake motion. The *seismic factor of safety* is a unitless measure of strength calculated for fill material assuming earthquake conditions. It is the ratio of material shear strength relative to the magnitude of shear forces acting on the material. For a CCR disposal unit, the *seismic location demonstration* could be composed of numerous *factor of safety* calculations showing that the structural components of the unit have factors of safety greater than or equal to 1.00.

⁵⁹Kavazanjian, E., 1999. Seismic Design of Solid Waste Containment Facilities. Proceedings of the Eight Canadian Conference on Earthquake Engineering Vancouver, BC, pp. 51–89.

⁵⁷Bryant, W.A. and Hart, E.W., 2007. Fault-Rupture Zones in California. Special Publication 42 (Interim Revision), California Division of Mines and Geology, Sacramento, California.

capable of preventing harmful release of CCR, leachate, and contaminants both during and after the seismic event.

6. Unstable Areas

EPA laid out its rationale for these requirements in the proposal at 75 FR 35201. No significant comments were received on either this rationale or the specific regulatory provisions. Consequently, EPA is adopting the regulatory text as proposed. Specifically, under § 257.64(a) new and existing CCR landfills, new and existing CCR surface impoundments and all lateral expansions are prohibited from sites classified as unstable areas unless the owner or operator makes a demonstration, certified by a qualified professional engineer, that engineering measures have been incorporated into the CCR unit's design to ensure that the structural components will not be disrupted. EPA considers a structural component to include any component used in the construction and operation of CCR landfill or CCR surface impoundment that is necessary to ensure the integrity of the unit and to ensure that the contents will not be released to the environment, including liners, leachate collection system, embankments, spillways, outlets, final covers, inflow design flood controls systems. Liners and leachate collection systems require a firm, secure foundation to maintain their integrity, and may be disrupted as a result of uneven settlement induced by hydrocompaction. Similarly, sudden differential movement resulting from CCR placement and the consequent exceedance of the weight-bearing strength of subsurface materials in unstable areas can destroy liners and damage the unit's structural integrity, resulting in catastrophic release of CCR. It is essential for the owner or operator of any CCR unit to extensively evaluate the adequacy of the subsurface foundation support for the structural components of the unit. Therefore, the Agency is making this demonstration mandatory for all CCR units; existing CCR units for which a demonstration cannot be made must be closed.

EPA has adopted the following definitions without material change from the proposal: *Unstable area* means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the structural components responsible for preventing releases from a CCR unit. Natural unstable areas include those areas that have poor soils for foundations, areas susceptible to mass movements, and karst terrains. *Structural components* mean liners,

leachate collection systems, final covers, run-on/run-off systems, and any other component used in the construction and operation of a CCR unit. *Poor foundation conditions* means those areas where features exist which may result in inadequate foundation support for the structural components of a CCR unit. *Areas susceptible to mass movement* means those areas of influence (*i.e.*, areas characterized as having an active or substantial possibility of mass movement) where the movement of earth material at, beneath, or adjacent to the CCR unit, because of natural or man-induced events, results in the downslope transport of soil and rock material by means of gravitational influence. Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, solifluction, block sliding, and rock fall. *Karst terrain* means an area where karst topography, with its characteristic erosional surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terrains include, but are not limited to, dolines (sinkholes), vertical shafts, sinking streams, caves, seeps, large springs, and blind valleys.

The owner or operator must consider at a minimum, the following factors when determining whether an area is unstable: (1) On-site or local soil conditions that may result in significant differential settling; (2) on-site or local geologic or geomorphologic features; and (3) on-site or local human-made features or events (both surface and subsurface). To evaluate subsurface conditions for purposes of § 257.64(c)(3), EPA considers it essential that the owner or operator conduct a geotechnical site investigation, certified by a qualified professional engineer, to identify any potential thick layers of soil that are soft and compressible (*e.g.*, loess, unconsolidated clays, wetland soils), which could cause a significant amount of post-construction differential settlement of foundation soils, adjacent embankments, and slopes unless improved. In addition, it is essential that the investigation identify on-site or local soil conditions that are conducive to downslope movement of soil, rock, and/or debris (alone or mixed with water) under the influence of gravity. Local topography, surface and subsurface soils, surface slope angles, surface drainage and run-off patterns, seepage patterns, rock mass orientations, joint patterns, fissures, and any other landscape factors that could influence downslope movement should

be identified. Anthropogenic activities that could induce instability include mining, cut and fill activities during construction, excessive drawdown of groundwater, which may cause excessive settlement or bearing capacity failure of foundation soils, and use of an old landfill as the foundation for a new landfill without verification of complete settlement of the underlying wastes.

In designing a new CCR unit located in an unstable area, recognized and generally accepted good engineering practices dictate that a stability assessment should be conducted to prevent a destabilizing event from damaging the structural integrity of the component systems. For CCR units this involves three components: (1) An evaluation of subsurface conditions, (2) an analysis of slope stability, and (3) an examination of related design needs. In addition to explaining site constraints, identifying any soft soils, and recommending any appropriate ground improvement techniques, the assessment report should include a description of: The site, site geology; and investigative methodology; the results from all site investigations including subsurface exploration, field and laboratory tests, and test results; the subsurface profile, recommended foundation types, depths, and bearing capacities; the water content, grain-size distribution, shear strength, plasticity, and liquefaction potential of foundation soils and subsoils; and other foundation consolidation and settlement issues relevant to site development.

In addition to assessing the ability of soils and rocks to serve as a foundation, it is essential that the report also include a stability assessment of excavated sideslopes, aboveground embankments or dikes, and retaining structures. The slope stability analyses are performed as part of an evaluation of the design configuration under all potential hydraulic and loading conditions, including conditions that may exist during construction of a lateral or vertical expansion. As part of any demonstration, owners and operators should make an assessment, certified by a qualified professional engineer, that finalized site embankments and slopes are able to maintain a stable condition. In addition to evaluating the potential for post-construction differential settlement, the stability assessment should also consider seepage-induced saturation and softening of soils, particularly at CCR surface impoundments and CCR landfill sites that manage effluent.

Engineering considerations for CCR landfills and lateral expansions located in unstable areas are expected to be

similar to those for MSWLFs, which can be found in EPA's 1993 Technical Manual on Solid Waste Disposal Facility Criteria (EPA530-R-93-017). For surface impoundments the relevant design criteria are found in the Agency's 1991 Technical Resource Document on Design, Construction and Operation of Hazardous and Non-Hazardous Waste Surface Impoundments (EPA/530/SW-91/054). Any stability assessment should consider the following: (1) The adequacy of the subsurface exploration program; (2) the liquefaction potential of the embankment, slopes and foundation soils; (3) the expected behavior of the embankment slopes, and foundation soils when they are subjected to seismic activity; (4) the potential for seepage-induced failure; and (5) the potential for differential settlement.

For facilities in areas of karst, to support the demonstration required under the regulations, the owner or operator would need to evaluate the subsurface conditions to ensure that the unit is located away from the influence of potential sinkholes. For areas where the solution-weathered limestone is close to the surface (e.g., Florida) recognized and generally accepted good engineering practices dictate that there must be no conduits beneath the CCR unit that allow piping of groundwater into the karst aquifer, or shallow caves that could cause sudden collapse of the unit foundation. Where unconsolidated sediments cover underlying limestone, piping is commonly marked by paleosinks where sands and clays from the overburden have filled solution cavities in the underlying limestone.⁶⁰ Local hydraulic gradients in paleosinks typically point downward. EPA generally expects the potential for sinkhole development to be minimal at locations in karst areas where there are no paleosinks, or historical record of sinkhole development, and where there are no local hydraulic gradients that point downward.

In making a demonstration, it is important for owners and operators of CCR landfills and surface impoundments in karst areas to adequately characterize subsurface conditions. Karst hydrogeology is complex, since contaminant flows can occur along paths and networks that are discreet and tortuous, and groundwater monitoring wells must be capable of detecting any contaminants released from the CCR unit into the karst aquifer. Therefore, the owner or operator will

need to ensure, with verification by a qualified professional engineer, that monitoring wells installed in accordance with § 257.91 will intercept these pathways. Verification will usually necessitate the use of tracers to track groundwater flow towards offsite seeps or springs from the uppermost aquifer beneath the facility.

Any engineered solution employed to mitigate weak ground strength in karst areas must be able to prevent the kind of foundation collapse and settlement that could lead to sudden release to the environment of CCR with its toxic constituents and associated leachate. Solution cavities present at the site should be filled with grout or other suitable stiff material to avoid further crumbling and erosion. Where necessary, CCR unit foundations could be reinforced with engineered ground supports such as concrete footings that bridge voids. Larger caverns could be filled with concrete to underpin the CCR unit foundation by transferring load to the cavern floor. However, such engineered solutions are complex and costly, and the best protection is not to site CCR landfills and surface impoundments in karst areas. Nevertheless, this rule does not ban the location of CCR landfills, surface impoundments, or lateral extensions in karst areas.

7. Closure of Existing CCR Landfills and Existing CCR Surface Impoundments

The final provisions of § 257.60 require owners or operators of an existing CCR surface impoundment to demonstrate that the unit meets the minimum requirements for placement above the uppermost aquifer (i.e., constructed with a base located no less than 1.52 meters (five feet) above the upper limit of the uppermost aquifer) no later than 42 months after the date of publication of this rule in the **Federal Register**.

Owners and operators of existing CCR surface impoundments subject to §§ 257.61–257.64 of this rule and existing CCR landfills subject to § 257.64, must complete demonstrations by the date corresponding to 42 months from publication of this rule. The Agency is setting the compliance deadline at 42 months to allow owners and operators time to complete the requisite studies (e.g., to adequately characterize seasonal variations in the elevation of the top of the uppermost aquifer) and to complete any engineering measures necessary to allow the CCR unit to meet the performance standards. If closure is warranted, it must be initiated no later than 48 months from publication of this rule.

Closure and post-closure care must be done in accordance with §§ 257.100–103; which allow certain regulatory flexibilities provided specific conditions are met.

D. Design Criteria—Liner Design

EPA proposed that existing CCR landfills without a composite liner could continue to operate and receive CCR without violating the open dumping prohibition. Conversely, EPA proposed that existing CCR surface impoundments would be required to retrofit with a composite liner system, as defined in the proposed rule, within five years of the effective date of the rule or to close. EPA also proposed that all new CCR units must be constructed with a composite liner and leachate collection and removal system.

In the proposal, EPA defined a *composite liner* to mean a liner system consisting of two components; the upper component consisting of a minimum 30-mil flexible membrane liner (FML), and the lower component consisting of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec.⁶¹ FML components consisting of high density polyethylene (HDPE) were required to be at least 60-mil thick; and the FML component was required to be installed in direct and uniform contact with the compacted soil component.

EPA solicited comment on a number of issues, including: (1) Whether EPA should allow facilities to use an alternative design for new CCR units; (2) whether clay liners designed to meet a 1×10^{-7} cm/sec hydraulic conductivity might perform differently in practice than modeled in the risk assessment, including a request for specific data on the hydraulic conductivity of clay liners associated with CCR units; and (3) whether the effectiveness of such additives as organosilanes, would allow the use of these additives in lieu of composite liners. (See 75 FR 35203 and 35222.)⁶² With respect to the last two issues, the Agency received little comment. However, in response to the use of alternative liner designs in lieu of a composite liner (as defined in the rule), significant comment was received. Commenters advocated for a number of alternative composite liner designs, with a majority recommending that a

⁶¹ The definition of *hydraulic conductivity* is being promulgated as proposed, and will mean the rate at which water can move through a permeable medium (i.e., the coefficient of permeability).

⁶² The terms compacted soil and compacted clay are used interchangeably, i.e., when referring to a compacted soil liner this is the same as referring to a compacted clay liner (CCL).

⁶⁰ For examples, see Garlanger, J.E., Foundation Design in Florida Karst. Online presentation by Ardaman & Associates. http://www.ardaman.com/foundation_design.htm.

geosynthetic clay liner (GCL) be allowed as an alternative to the lower component of the composite liner. Other commenters stated that GCLs alone should be allowed as an alternative to the proposed composite liner. Still others argued that alternative liner designs, such as an FML/FML⁶³ provided a level of performance similar to the proposed composite liner system and should be allowed. Conversely, there were also comments opposing the use of any alternative liners, claiming that alternatives have not been proven to be effective.

EPA also received significant comment on the actual design of the composite liner system proposed by the Agency as it pertained to CCR surface impoundments (see 75 FR 35202–35203).⁶⁴ Commenters argued that the proposed requirement for a leachate collection and removal system in a CCR surface impoundment was illogical since it would have to be constructed between the lower component (two feet of compacted soil) and upper component (flexible membrane liner) and the proposed rule specifically states that the flexible membrane liner component must be installed in direct and uniform contact with the compacted soil component. Commenters reasoned that the inclusion of a leachate collection and removal system between the upper and lower components precluded direct and uniform contact between the two components and that placing a leachate collection and removal system between the lower and upper components of a composite liner would compromise the integrity of the composite liner. With regard to this last point, the Agency has reviewed the requirements for a proposed composite liner system as it would pertain to CCR surface impoundments and agrees that the leachate collection and removal system requirements proposed for CCR surface

impoundments would be counterproductive; EPA proposed this requirement in error. The integrity of the composite liner system is indeed dependent upon the direct and uniform contact of the upper GM component with the lower soil component. The proposed requirement for CCR surface impoundments to construct a leachate collection system between the FML and soil components would prevent the direct and uniform contact of the upper and lower components and, therefore, compromise the integrity of the composite liner. For this reason, EPA is not requiring a leachate collection and removal system for new surface impoundments or any lateral expansion of a CCR surface impoundment.

While EPA agrees with those commenters arguing that new CCR units should only be installed with a composite liner system of some kind, the Agency has concluded that not all alternative designs for a composite liner system should necessarily be rejected as insufficiently protective. Many commenters provided strong and compelling evidence that the specific composite liner system described in the proposed rule was not always feasible or necessary to protect groundwater resources and that alternate composite liner designs could be equally protective, and may be a necessity in many areas of the country where soil with the appropriate hydraulic conductivity may not be available (e.g., Alaska).⁶⁵

In re-evaluating the proposed requirement for a composite liner system, EPA was influenced by a number of factors.⁶⁶ First, the data provided by commenters showing the performance of a GM/GCL design. Second, EPA's own studies showing that a GM/GCL liner can be constructed to achieve hydraulic efficiencies in the range of 99 to 99.9% which meets or exceeds the hydraulic performance of a GM/compacted clay liner (CCL) design.⁶⁷ In addition, these high

efficiencies demonstrate that the GCL component of a GM/GCL composite liner is at least as effective in impeding leakage through holes in the GM component of the composite liner system as a CCL with a hydraulic conductivity no more than 1×10^{-7} cm/sec.⁶⁸ In fact, EPA has developed guidance for the selection and installation of various types of liners including a GM/GCL.⁶⁹ And third, EPA was influenced by the many comments arguing that a “one-size-fits all” approach to liner design stifles design innovation and regulatory flexibility in addressing site specific factors such as geologic or climatic conditions. These commenters reasoned that if EPA established some type of performance standard for composite liners, it would mitigate the negative impacts of a “one-size fits all” regulatory framework.

1. Development of Composite Liner Design Criteria

In this final rule EPA is requiring all new CCR units to be designed and constructed with a composite liner as specified in § 257.70. EPA is also providing the owner or operator with an option to install an alternative composite liner provided it meets the required performance standard and it is certified by a qualified professional engineer. EPA has concluded, consistent with many of the comments received and its own analysis, that an alternative composite liner for new CCR units is warranted if it can be shown to be equivalent to the performance of a composite liner and affords the same protections to groundwater resources as a composite liner. The Agency is promulgating this alternative option to provide flexibility in designing and constructing a protective composite liner system that addresses site specific conditions and situations. The Agency acknowledges that it was overly prescriptive by requiring one particular type of liner rather than relying on a performance standard to define the lower component of the composite liner. The overwhelming amount of data supporting the effectiveness of a GC/GCL liner has convinced the Agency that the final rule should allow for some flexibility in composite liner designs. As such, the Agency is allowing new CCR units to be designed and constructed

⁶³ Current terminology favors the use of geomembrane liner or GM when referring to flexible membrane liners or FMLs. Hereafter in the preamble, except when referring to specific comments or the proposed rule, and in the final rule, the Agency will use the term geomembrane liner or GM in place of flexible membrane liner or FML.

⁶⁴ See proposed § 257.71 which states that an existing CCR surface impoundment shall be constructed with a composite liner and a leachate collection system between the upper and lower components of the composite liner; where a composite liner means a system consisting of two components; the upper component consisting of a minimum 30-mil flexible membrane liner (FML) and a lower component consisting of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec. The FML component would be required to be installed in direct and uniform contact with the compacted soil component (see 75 FR 35243).

⁶⁵ See for example comments from the states of Alaska (EPA–HQ–RCRA–2009–0640–06409); Florida (EPA–HQ–RCRA–2009–0640–06846); and North Carolina (EPA–HQ–RCRA–2009–0640–09282) available at www.regulations.gov.

⁶⁶ Geomembranes (GMs), which are flexible membrane liners (FMLs), are thin materials manufactured from polymers and reinforced with woven fabric or fibers which are used as hydraulic barriers. Resins used to manufacture geomembrane liners typically include high density polyethylene (HDPE), linear low density polyethylene (LLDPE), low density linear polyethylene (LDLPE), very low density polyethylene (VLDPE) and polyvinyl chloride (PVC). Geomembranes manufactured using HDPE are the least flexible of the geomembranes.

⁶⁷ USEPA, “Assessment and Recommendations for Improving the Performance of Waste Containment Systems,” EPA 600/R–02/029,

December 2002. <http://nepis.epa.gov/Adobe/PDF/P1001083.pdf>.

⁶⁸ USEPA, “Assessment and Recommendations for Improving the Performance of Waste Containment Systems,” EPA 600/R–02/029, December 2002.

⁶⁹ USEPA, “Guide for Industrial Waste Management,” Chapter 7 (<http://www.epa.gov/osw/nonhaz/industrial/guide/pdf/chap7b.pdf>).

with an alternative composite liner, as described below, provided the lower component of the composite liner meets a specified performance standard that ensures it functions in a manner equivalent to the composite liner system defined in the rule.

Composite liner systems installed in either a CCR landfill or CCR surface impoundment provide an effective hydraulic barrier by combining the complementary properties of the two different liner components. The geomembrane provides a highly impermeable layer that can maximize leachate collection and removal in a CCR landfill or minimize infiltration of leachate in a CCR surface impoundment, while the soil component (e.g., CCL) serves as a backup in the event of any leakage/infiltration from the geomembrane occurs. Data indicate that alternatives to the lower component of the composite liner system (e.g., GCLs) are available and can perform at a level equivalent to a compacted soil liner, based on a comparison of their flow rates with two feet of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec.

2. Liner Designs That Would Not Meet the Requirements of a Composite Liner or Alternative Liner

Contrary to the arguments made by several commenters, EPA has concluded that a composite liner consisting of two 30-mil GMs (GM/GM) will not provide an equivalent degree of protection as a composite liner consisting of a GM and two feet of compacted soil, or an alternative composite liner such as a GM/GCL. While GMs have the advantages of extremely low rates of water permeation, the disadvantages of a composite liner consisting of two GMs include leakage through occasional GM imperfections and punctures, potential for slippage along the interface between the GMs, and GM embrittlement over time. Furthermore, a critical component of a composite liner is the compacted soil or GCL component beneath the GM layer that will impede the flow of liquid that may leak through a hole or defect in the GM. This added protection cannot be achieved using two GMs for the composite liner. Additionally, the potential exists for liquid transport through the GMs through holes caused by punctures, tears, flawed seams, etc. If a puncture occurs, the puncture could compromise both GMs and create a conduit for liquid flow to underlying permeable soil. Moreover, a liner system consisting of two GMs in contact with each other poses the risk of creating a slip plane that may compromise the

stability of the disposal unit (although EPA acknowledges that using textured GMs would reduce or eliminate this particular risk). These data are documented in EPA research.⁷⁰

Consistent with the previous determination, EPA has also determined that the double liner system set forth in Florida regulations (see Florida Rules 62–701.400(3)(c), F.A.C) also does not meet the level of performance achieved by EPA's composite liner system or the alternative liner system. While this double liner system provides the advantage of a leak detection system between the two GMLs, the lower composite liner, consisting of a 60-mil HDPE over six inches of soil with a saturated hydraulic conductivity of less than or equal to 1×10^{-5} cm/sec, is not equivalent to a GM over two feet of compacted soil with a hydraulic conductivity of less than or equal to 1×10^{-7} cm/sec. To be hydraulically equivalent, soil with a hydraulic conductivity of 1×10^{-5} cm/sec would need to be on the order of 100 times thicker than soil with a hydraulic conductivity of less than or equal to 1×10^{-7} cm/sec. Similarly, a lower composite liner consisting of a 60-mil HDPE over a GCL with a hydraulic conductivity not greater than 1×10^{-7} cm/sec would require a GCL thickness of 24 inches to be equivalent to a GM over two feet of compacted soil with a hydraulic conductivity of less than or equal to 1×10^{-7} cm/sec.

EPA has also examined the performance of GCLs approved for use as alternatives to composite liners in MSWLFs.⁷¹ The EPA report titled "Assessment and Recommendations for Improving the Performance of Waste Containment Systems,"⁷² concluded that if a CCL or GCL is used alone, liquid migration can occur over the entire area of the liner that is subject to a hydraulic head. The report also concluded that in a composite liner, leakage will only occur at the location of the geomembrane penetration (e.g., hole, tear), and will be much slower than flow through an orifice due to the hydraulic impedance provided by the

⁷⁰ "Assessment and Recommendations for Improving the Performance of Waste Containment Systems."

⁷¹ "Geosynthetic Clay Liners Used in Municipal Solid Waste Landfills," <http://www.epa.gov/wastes/nonhaz/municipal/landfill/geosyn.pdf>; "Geosynthetic Clay Liners in Waste Containment," http://www.epa.gov/superfund/remedytech/tsp/download/2001_meet/prez/carson.pdf; and "Assessment and Recommendations for Improving the Performance of Waste Containment Systems," <http://nepis.epa.gov/Adobe/PDF/P1001083.pdf>.

⁷² "Assessment and Recommendations for Improving the Performance of Waste Containment Systems."

CCL or GCL alone. The report also evaluated, among other characteristics, the hydraulic efficiencies of a GM/GCL composite liner system for 28 cells at seven landfills. Liner hydraulic efficiencies were reported between 97% and 100%. However, potential stability problems were reported with GCLs constructed on slopes greater than 10 H:1 V (5.7°), and GCLs may not be appropriate for the disposal of liquid wastes or sludges. The Agency is also concerned that GCLs, being much thinner than the two feet of compacted soil required for composite liners, may allow for the flow of liquids through the GCL at a faster rate than through two feet of compacted soil. Taking all of this information into account, the Agency remains unconvinced that a GCL alone is a viable alternative to a composite liner.

3. Design Requirements

a. Existing CCR Landfills

As proposed, the final rule allows existing CCR landfills as defined in § 257.54, to continue to operate without retrofitting with a composite liner and leachate collection and removal system. As previously discussed, given the volume of the material currently managed in CCR landfills, the potential for disruption in CCR disposal capacity if existing CCR landfills were required to retrofit would be significant. Significant disruptions in the state-wide solid waste management (and possibly power generation) are associated with significant risks to public health and the environment in their own right. EPA has concluded that these risks are greater than the risks associated with allowing unlined CCR landfills to continue to operate. Further, existing CCR landfills will be required to comply with the extensive groundwater monitoring and corrective action requirements, among others, to ensure that any groundwater releases from the CCR unit are identified and promptly remediated, which will significantly mitigate the risks from these existing units. By themselves, the risk assessment results and the risk migration from the other regulatory requirements in this rule would not support a decision to allow these CCR units to continue to operate on a national basis. But when the risks associated with the level of disruption EPA estimates to be possible from requiring existing CCR landfills to retrofit are also included, the totality of the evidence supports a determination that allowing these units to continue operating meets the section 4004(a) standard.

b. Existing CCR Surface Impoundments

In a departure from the proposed rule and after considerable evaluation and analysis, the Agency is finalizing a provision to allow all existing CCR surface impoundments to remain in operation provided certain conditions are met.⁷³ Owners or operators of existing CCR surface impoundments are required, within one year of the effective date of the rule, to document, certified by a qualified professional engineer, whether the unit is constructed with any one of the three liner types: (1) A liner consisting of a minimum of two feet of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec; (2) a composite liner that meets the requirements of § 257.70(b); or (3) an alternative liner that meets the requirements of § 257.70(c). In some instances, owners or operators may have information readily available to determine if an existing CCR surface impoundment is constructed with one of the three liner types listed above. On the other hand, this information may not be readily available and may require an owner or operator to conduct an engineering evaluation to determine if the unit was constructed with any of the three liner type. Factors such as the availability of engineering personnel and weather may impede the engineering evaluation. Therefore, EPA believes that 12 months from the effective date, or 18 months from publication of the rule, is a reasonable amount of time to make the determination of whether the existing CCR surface impoundment was constructed with one of the three liner types described above. Existing surface impoundments with liners that meet the criteria established for any of the three specified liner types are considered to be an “existing lined CCR surface impoundments.” These existing lined surface impoundments can continue to operate until the owner or operator decides to initiate closure, provided the unit does not meet other requirements of the rule that independently mandate closure of the unit (*e.g.*, location criteria (§§ 257.60–257.64) or structural integrity factors of safety (§ 257.73)). Existing unlined CCR surface impoundments must also cease receiving CCR and initiate closure if an owner or operator determines, at any point in time, as part of its groundwater monitoring program that the concentrations of one or more

constituents listed in appendix IV to part 257 are detected at a statistically significant level above the groundwater protection standard established for that unit. EPA agrees with the many commenters who argued that existing unlined CCR surface impoundments should not be required to close prematurely if they are operating as designed and are complying with all of the requirements of the rule, including all groundwater protection standards. Taking into account the additional protections required under this rule (*e.g.*, location restrictions, groundwater monitoring, corrective action, structural integrity criteria, inspections and fugitive dust controls), the Agency has concluded that the risks posed by unlined CCR surface impoundments that are not “leaking” (*i.e.*, exceeding any groundwater protection standard) are not sufficient to warrant requiring these units to close. However, once a groundwater protection standard is exceeded (*i.e.*, the unit is leaking), without any type of liner system in place, leachate will flow through the unit and into the environment unrestrained and the only corrective action strategy that EPA can determine will be effective at all sites nation-wide requires as its foundation the closure of the unit.

EPA acknowledges that it may be possible at certain sites to engineer an alternative to closure of the unit that would adequately control the source of the contamination and would otherwise protect human health and the environment. However, the efficacy of those engineering solutions will necessarily be determined by individual site conditions. As previously discussed, the regulatory structure under which this rule is issued effectively limits the Agency’s ability to develop the type of requirements that can be individually tailored to accommodate particular site conditions. Under sections 1008(a) and 4004(a), EPA must establish national criteria that will operate effectively in the absence of any guaranteed regulatory oversight (*i.e.*, a permitting program), to achieve the statutory standard of “no reasonable probability of adverse effects on health or the environment” at all sites subject to the standards. EPA was unable to develop a performance standard that would allow for alternatives to closure, but would also be sufficiently objective and precise to minimize the potential for abuse. There are too many factors that determine whether a particular engineering solution will meet the section 4004(a) standard at a particular

site. And the risks of these units are simply too high.

Conversely, existing lined surface impoundments that exceed their groundwater protection standard are in a better position to manage the leak because it is usually caused by some localized or specific defect in the liner system that can more readily be identified and corrected. Consequently, this rule is not requiring existing lined CCR surface impoundment to close if an exceedance of a groundwater protection standard is detected; rather the Agency is affording the owner or operator with the opportunity to rely on corrective action measures to bring the risks back to acceptable levels (*i.e.*, control the source of the release and remediate the contamination), without mandating closure of the unit.

c. New CCR Landfills and New CCR Surface Impoundments and All Lateral Expansions

Both the CCR damage case history and the risk assessment clearly show the need for and the effectiveness of appropriate liners in reducing the potential for groundwater contamination at CCR landfills and CCR surface impoundments. Accordingly, EPA is finalizing liner and leachate collection and removal system requirements for new CCR landfills and all lateral expansions of these units. Similarly, EPA is finalizing liner requirements for new CCR surface impoundments and all lateral expansions of these units.

Specifically, EPA is requiring new CCR landfills, new CCR surface impoundments, and all lateral expansions be constructed with a composite liner (see § 257.70). The composite liner must consist of two components; an upper component consisting of a minimum 30-mil geomembrane liner (GM), and a lower component consisting of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} centimeters per second (cm/sec). GM components consisting of high density polyethylene (HDPE) must be at least 60-mil thick and the GM or upper liner component must be installed in direct and uniform contact with the compacted soil or lower liner component.

New CCR landfills or lateral expansions of these units are also required to be constructed with a leachate collection and removal system designed to maintain less than a 30-centimeter depth of leachate over the composite liner. A leachate collection and removal system is not required for new CCR surface impoundments

⁷³ Existing CCR surface impoundments will not be required, as was proposed, to retrofit to a composite liner or close within five years of the effective date of the rule (see 57 FR 35202).

because, as previously discussed, a leachate collection system installed between a single composite liner system is not practicable and would compromise the integrity of the composite liner system.

In addition, in response to comments on the proposed rule, EPA is allowing alternatives to the lower component of the composite liner system provided the flow rate through the lower component is no greater than the flow rate through two feet of compacted soil with a hydraulic conductivity of 1×10^{-7} cm/sec. The lower component must also be a recognized liner material; e.g., soil, clay, or GCL. Alternative composite liners using compacted soil or clay as the lower component must be constructed with the upper component in intimate contact with the lower component; *i.e.*, the geomembrane must be installed to ensure good and uniform contact with the lower component. The hydraulic conductivity for the two feet of compacted soil used in the flow rate comparison must be no greater than 1×10^{-7} cm/sec. The hydraulic conductivity of the lower component must be determined using recognized and generally accepted engineering methods, for example, ASTM D5084–10, “Standard Test Methods for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter,” ASTM International, West Conshohocken, PA, 2012, DOI: 10.1520/D5084–10, www.astm.org for compacted soils or clays, or ASTM Standard D6766–12, “Standard Test Method for Evaluation of Hydraulic Properties of Geosynthetic Clay Liners Permeated with Potentially Incompatible Aqueous Solutions,” ASTM International, West Conshohocken, PA, 2012, DOI: 10.1520/D6766–12, www.astm.org for GCLs. The flow rate comparison for the lower component must be made using Darcy’s Law for gravity flow through porous media, which is an empirical law which states that the velocity of flow through porous media is directly proportional to the hydraulic gradient. The use of Darcy’s Law to calculate fluid flow through porous media is a well-established and generally accepted engineering methodology, and is the foundation for EPA’s Composite Model for Leachate Migration with Transformation Products (EPACMTP) and is generally recognized to evaluate steady state flow of liquids through soils and GCLs.⁷⁴ EPACMTP is a subsurface

⁷⁴ See for example EPA’s Composite Model for Leachate Migration with Transformation Products (EPACMTP) at <http://www.epa.gov/epawaste/nonhaz/industrial/tools/cmtpl/>, “Assessment and

fate and transport model EPA uses to simulate the impact of the release of constituents present in waste that is managed in land disposal units. Accordingly, the flow rate comparison for the lower component of alternative composite liner must be made using the following equation which is derived from Darcy’s Law.

$$\frac{Q}{A} = q = k \left(\frac{h}{t} + 1 \right)$$

where:

Q = flow rate,

A = surface area of the liner,

q = flow rate per unit area,

k = hydraulic conductivity of the liner,

h = hydraulic head above the liner, and

t = thickness of the liner.

A qualified professional engineer must certify that the design and construction of either the composite liner or the alternative composite liner meets the requirements of §§ 257.70(b) or (c).

EPA has also supplemented the composite liner criteria for landfills with performance standards that provide more precise direction to the professional engineer regarding the “recognized and generally accepted good engineering practices” that need to be used in the design and construction of composite liner systems to ensure that the liner system will continue to perform as designed. These criteria, which have been codified at §§ 257.70(b) and 257.70(c), have been adopted in response to comments requesting that EPA provide the professional engineers that will be required to certify that CCR units meet the requirements of the rule, with more precise and objective criteria. These criteria reflect the engineering specifications necessary to prevent liner failures resulting from improper design and construction and to ensure that the liner will continue to perform correctly. These provisions will ensure not only that the liner is properly designed and constructed, but also that the system will continue to safely perform throughout the landfill’s active life and through post closure care. The criteria have been adopted from the technical

Recommendations for Improving the Performance of Waste Containment Systems.” Giroud, J.P., Badu-Tweneboah, K. and Soderman, K.L., 1997, “Comparison of Leachate Flow Through Compacted Clay Liners and Geosynthetic Clay Liners in Landfill Liner Systems,” *Geosynthetics International*, Vol. 4, Nos. 3–4, pp. 391–431 (<http://www.geosyntheticsociety.org/Resources/Archive/GI/src/V4I34/GI-V4-N3&4-Paper7.pdf>), and “Design Considerations for Geosynthetic Clay Liners (GCLs) in Various Applications,” *Geosynthetic Research Institute*, January 9, 2013 (<http://www.geosynthetic-institute.org/grispecs/gcl5.pdf>).

provisions proposed under the subtitle C provisions for CCR landfills, and are consistent with design requirements set forth for hazardous waste landfills regulated under part 265 of RCRA, as well as existing guidance and recognized good engineering practices for the design and construction of MSWLFs.⁷⁵

Specifically, the Agency is modifying the composite and alternative liner design requirements by requiring the composite or alternative liner to be chemically compatible with the CCR and of adequate strength and thickness to prevent failure. The liner system must also provide appropriate shear strength between the two components to prevent sliding of the upper component. In addition, the Agency is requiring that liners be placed on an adequate foundation and installed to cover all areas that might come into contact with the CCR.

For new CCR landfills, which are required to have a leachate collection and removal system designed and operated to maintain less than a 30 centimeter depth of leachate, the Agency is also requiring, that the leachate collection and removal system be constructed of sufficient strength and thickness to prevent collapse from the pressure of the CCR and to minimize clogging during the active life and post closure care period.⁷⁶

4. Vertical Expansions of New and Existing CCR Landfills and All Lateral Expansions

In the proposed rule, EPA stated that CCR landfills could vertically expand without retrofitting, in order to alleviate concerns with regard to CCR disposal capacity in the short term. In the few comments to the proposed rule which mentioned vertical expansions of landfills, commenters requested that the Agency clarify the design standards that vertical expansions would have to meet. Information collected to date, which is included in the docket supporting the final rule, leads the Agency to conclude there are no issues unique to vertical expansions of CCR landfills that warrant modifications to the technical standards

⁷⁵ “Technical Guidance Document: Quality Assurance and Quality Control for Waste Containment Systems.” U.S. Environmental Protection Agency. Risk Reduction Engineering Laboratory, Office of Research and Development, Cincinnati, OH 45268. EPA/600/R–93/182. September 1993.

⁷⁶ Hardin, PE, Christopher D, and Perotta, PE Nick L. “Operations and Maintenance Guidelines for Coal Ash Landfills—Coal Ash Landfill are NOT the Same as Subtitle D Solid Waste Landfills”. Presented at the 2011 World of Coal Ash Conference; May 9–12, 2011 in Denver, Colorado. <http://www.flyash.info/2011/127-Hardin-2011.pdf>.

being promulgated in this rule. Therefore, vertical expansions of existing CCR landfills are not subject to the provisions governing new units, but are subject to all applicable requirements for existing CCR landfills. To be clear however, while the location requirements relating to the placement above the water table, wetlands, fault areas, and seismic impact zones do not apply to existing CCR landfills, all of these restrictions apply to lateral expansions of existing CCR units, as well as new CCR units. Consequently, under this rule, owners or operators of existing CCR landfills can continue to vertically expand their existing facilities in these locations, but must comply with the provisions governing new units if they wish to laterally expand.

5. Construction of New CCR Landfills or Any Lateral Expansion Over an Existing CCR Unit

On August 2, 2013, EPA published a NODA that among other things, solicited comment regarding a particular type of CCR management unit described by some commenters in the proposed rule as “overfills” (see 78 FR 46940). Overfills are CCR landfills constructed over a closed CCR surface impoundment. As discussed in the NODA, in developing the proposed rule, EPA was not aware that CCR was managed in this fashion and so did not either evaluate this specific management scenario or propose technical requirements specifically tailored to this type of unit. Under the proposed rule, these types of units would need to comply with both the requirements applicable to the closure of surface impoundments or landfills, and with all of the technical requirements applicable to new landfills. Information collected since the proposal confirmed that the practice of constructing overfills for the disposal of CCR is conducted with some regularity, and raised questions as to whether overfills would be effectively regulated under the proposed technical requirements of the rule. In the NODA, to aid in the development of final technical requirements, EPA solicited data and information that directly addressed existing engineering guidelines or practices applicable to this units, as well as any regulatory requirements governing the siting, design, construction, and long-term protectiveness of these units for the disposal of CCR.

The Agency received numerous comments on the NODA. The majority of commenters agreed that overfills are commonly employed to allow continuing use of CCR disposal sites

and to avoid the need to develop CCR management units at other sites. Some commenters added that: (1) The engineering design of an overfill can increase the stability of the underlying surface impoundment or landfill; (2) the use of an overfill facility reduces the need for new infrastructure construction; and (3) an overfill avoids having to transport CCR significant distances for off-site disposal.

Other commenters mentioned that several states had experience with overfills and have applied requirements such as liner systems, monitoring wells, and stormwater modeling on a case-by-case basis using best engineering practices. They added that overfills pose unique construction and operational issues depending on the site and the characteristics of the underlying unit, and that the construction of these units will therefore vary to account for these conditions. Commenters identified several issues requiring additional attention during design and construction of overfills including seismic and static liquefaction, settlement, foundation improvement, partial overfills, groundwater upwelling, groundwater monitoring, and wastewater infrastructure.

Upon review of these comments and further evaluation, the Agency has concluded that while there may be technical issues relating to the design, construction, and maintenance of overfills, the technical standards for CCR landfills are sufficiently flexible that no modifications are necessary to accommodate such units. For example, while the design and construction of groundwater monitoring systems may be technically more challenging, the final standards already allow for the construction of a multi-unit system. The performance standards and technical specifications laid out in the technical criteria developed for this rule are equally as applicable to overfills (and as protective) as to other new units. In essence, EPA is retaining the approach from the proposal that overfills will need to comply with both the requirements applicable to the closure of surface impoundments or landfills, and with all of the technical requirements applicable to new landfills. Thus, overfills cannot be constructed unless the underlying foundation—*i.e.*, the existing CCR surface impoundment has first been dewatered, capped, and completely closed. And because overfills are considered to be “new CCR landfills,” the design and construction of such units must comply with the technical requirements that address foundation settlement, overall and side slope

stability, side slope and subgrade reinforcement, and leachate collection and groundwater monitoring system requirements, which will all need to be evaluated independent of the underlying CCR unit to ensure that the overfill design is environmentally protective. This evaluation must also be certified by a qualified professional engineer.

Under the location standards applicable to new CCR units, subgrade soils must be capable of providing stable structural support to the new liner system. A foundation composed of unconsolidated materials, such as CCR that is susceptible to slip-plane failure, is an unstable area (man-made) and, under provisions of this rule, is therefore a prohibited location for new CCR units. The TVA Kingston ash fill failure was at least partly attributable to slip-plane failure of saturated CCR that made up the subgrade and foundation beneath the unit.

Similarly, prudent and standard engineering practice for new CCR landfills requires that the base and side slopes of the overlying CCR landfill be able to maintain the structural integrity of the unit. If necessary, the subgrade should be reinforced with a geotextile fabric, or otherwise improved, to stabilize existing CCR in the underlying unit and to minimize tensile strain in the liner system. Slopes should be reinforced to prevent downhill sliding and to protect the leachate drainage system.

EPA is aware from comments that at least one facility is consolidating wet CCR in an active CCR surface impoundment through placement of dry ash over the wet CCR, and thereby converting the impoundment to a dry landfill, without stabilizing the CCR in the unit or capping the unit. This practice will no longer be permitted under the final rule criteria. Although no modifications were determined to be necessary to the individual technical criteria, EPA has added specific provisions that clarify the status of overfills, and clearly prohibit construction of a CCR landfill over a CCR surface impoundment unless the CCR in the underlying unit has first been dewatered and the unit is capped and completely closed. Dewatering, capping and closure of the underlying CCR unit prior to construction of the overlying CCR landfill renders the CCR overfill less susceptible to slip-plane failure. Conversion of an impoundment to a landfill without these measures involves a complex construction process that is highly site specific; EPA was unable to develop sufficiently objective performance standards that could be

independently verified outside of a supervised permit program. Because this rule is self-implementing EPA is, therefore, prohibiting construction of new CCR landfills over operational CCR surface impoundments to prevent the creation of structurally unstable units that could lead to catastrophic failures.

E. Design Criteria—Structural Integrity

Under the design criteria requirements, EPA proposed to establish structural stability standards for existing and new CCR surface impoundments and lateral expansions of these units based on a combination of existing federal programs and requirements applicable to dam safety. The proposed rule was largely based on the requirements promulgated for coal slurry impoundments regulated by the MSHA at 30 CFR 77.216. (See 75 FR 35176.) EPA also developed aspects of the proposal based on the USACE and FEMA's dam safety programs. Consistent with the MSHA requirements, EPA proposed that existing and new CCR surface impoundments that could impound CCR to an elevation of five feet or more above the upstream toe of the structure and have a storage volume of 20 acre feet or more, or that impound CCR to an elevation of 20 feet or more above the upstream toe of the structure would be required to provide detailed information on the history of construction of the existing CCR surface impoundment and to meet certain performance standards. Specifically, facilities would need to (1) develop plans for the design, construction, and maintenance of existing impoundments, (2) conduct periodic inspections by trained personnel knowledgeable in impoundment design and safety, and (3) provide an annual certification by an independent registered professional engineer that all construction, operation, and maintenance of impoundments is in accordance with the approved plan.

EPA also proposed to require the facility to obtain certification from a professional engineer that the "design of the CCR surface impoundment is in accordance with current, prudent engineering practices for the maximum volume of CCR slurry and CCR wastewater which can be impounded therein and for the passage of run-off from the design storm which exceeds the capacity of the CCR surface impoundment. To support this performance standard, EPA proposed to require the facility to conduct specific analyses, and to provide information on critical structures. This includes the proposed requirements to compute the

minimum factor of safety for slope stability of the retaining structures of the unit, including the methods and calculations used to determine each factor of safety, and to provide information on the physical and engineering properties of the foundations of the CCR surface impoundment, any foundation improvements, drainage provisions, spillways, diversion ditches, outlet instrument locations and slope protections, and area capacity curves. EPA proposed to require more extensive information from new CCR surface impoundments addressing the design, construction, and maintenance of the new CCR unit, recognizing that such information may not be available for existing units.⁷⁷ In addition, EPA proposed to require existing and new CCR surface impoundments of a specified size to calculate and report the hazard potential classification of the unit. Finally, EPA proposed that any CCR surface impoundments classified as having a high or significant hazard potential, as certified by an independent registered professional engineer, be required to develop and maintain an Emergency Action Plan defining the responsible persons and actions to be taken in the event of a dam safety emergency.

The Agency solicited comment on a number of issues relating to the proposed structural stability requirements. In particular, the Agency solicited comment on the scope of these requirements and whether they should apply to all CCR surface impoundments regardless of height and/or storage volume or whether EPA should adopt, as proposed and consistent with the MSHA requirements, the size cut-off described in the proposed rule; *i.e.*, impounding CCR to an elevation of five feet or more above the upstream toe of the structure and have a storage volume of 20 acre feet or more, or impounding CCR to an elevation of 20 feet or more above the upstream toe of the structure.

EPA also solicited comment on several alternative strategies for regulating the structural stability of CCR surface impoundments in lieu of regulation under RCRA subtitle D. The first alternative involved using NPDES permits rather than RCRA regulations to

address dam safety and structural integrity. The second strategy would eliminate the structural integrity requirements from the RCRA subtitle D rule and, instead, have EPA establish and fund a program for conducting annual (or at some other frequency) structural stability assessments of CCR surface impoundments having a "high" or "significant" hazard potential rating as defined by criteria developed by the USACE for the NID. EPA would conduct these assessments and, using appropriate authorities already available under RCRA, CERCLA, and/or the Clean Water Act, would require facilities to respond to issues identified with their CCR surface impoundments. The rationale behind this suggested approach was that annual inspections would be far more cost effective than the phase-out of CCR surface impoundments—approximately \$3.4 million annually for annual assessments, as compared to the \$876 million annual cost of a rule that also phased out CCR. EPA also solicited comments on the effectiveness of this approach in ensuring the structural integrity of CCR surface impoundments. (See for example: 75 FR at 35176, 35223.)

On October 21, 2010, EPA published a NODA announcing that EPA intended to consider the information that had been developed through the Agency's Assessment Program as part of the CCR rulemaking. The NODA described the Assessment Program, and solicited comment on "the extent to which both the CCR surface impoundment information collection request responses and assessment materials on the structural integrity of these impoundments should be factored into EPA's final rule on the Disposal of Coal Combustion Residuals from Electric Utilities." (See 75 FR 35128.) This included the responses to information requests that EPA originally sent to electric utilities, as well as reports and materials related to the site assessments developed through the Assessment Program. At that time, EPA had completed the assessments and the final reports for 53 units. On August 2, 2013, EPA published another NODA soliciting public comment on the additional assessments that had been completed since the 2010 NODA. In all, this included draft and final reports for a total of 522 units and 209 facilities. EPA again solicited comment on the extent to which this information should be taken into account as part of this rulemaking.

EPA received numerous comments on the proposed structural stability requirements. Many of these fell within two general areas: (1) EPA's approach of

⁷⁷ In the proposed rule under proposed § 257.71—Design criteria for existing CCR surface impoundments, the Agency only required the hazard potential classification for which the facility is designed and a detailed explanation of the basis for the classification (§ 257.71(d)(1)) "as may be available" (§ 257.71(d)). Similarly the computed minimum factor of safety for slope stability of the CCR retaining structure(s) and the analyses used in the determination (§ 257.71(d)(11)) "as may be available" (§ 257.71(d)).

establishing the structural stability requirements, along with EPA's proposed reliance on MSHA's size thresholds to determine the applicability for the majority of structural stability requirements; and (2) the level of detail laid out in the technical criteria themselves.

With respect to the overall regulatory approach, the majority supported both the concept of structural stability requirements for existing and new CCR surface impoundments, and the adoption of the MSHA size threshold for complying with the majority of the structural stability requirements. EPA received comments from a number of state entities (the Association of State Dam Safety Officials (ASDSO) and the Association of State and Territorial Solid Waste Management Officials (ASTSWMO)) suggesting that EPA incorporate federal dam safety guidelines rather than rely solely on MSHA's dam safety guidelines. Commenters were concerned that the MSHA regulations "only exist to protect miners on mine property, and not the downstream public." They urged that any EPA regulation also include consideration of hazards to the downstream public. These commenters also requested that EPA "incorporate specific safety standards consistent with the Federal Guidelines for Dam Safety," referencing standards contained in FEMA documents 93, 333, 64, 94 and 65.

Little support was expressed for the alternative strategies presented in the proposal for addressing structural stability. Some comments were received suggesting additional alternatives. One commenter suggested that EPA consider limiting the volume of "primary containment ponds" to 10 acre-feet, reasoning that this provision would likely eliminate much of the concern regarding catastrophic failures, like TVA, and actually reduce the amount of slurry released in the event of a structural failure. Other commenters argued that EPA should limit the structural requirements to CCR surface impoundments both meeting the proposed size threshold and having a hazard potential classification of "high" or "significant" hazard potential rating based on FEMA's criteria for dam safety.⁷⁸ Commenters argued that a

failure of a CCR surface impoundment with a "low hazard potential classification" posed only a low risk for on-site economic or environmental losses and would avoid the imposition of costly, arbitrary and unnecessary regulatory burdens on the owner or operator. In addition, commenters contended that this regulatory approach would be consistent with many state dam regulatory programs that apply dam integrity standards only to "high" or "significant" potential hazard facilities and would promote consistency with existing state controls.⁷⁹ Several commenters also suggested that EPA consider adding regulatory language or preamble discussion to assist owners or operators of CCR surface impoundments in interpreting the specific technical requirements in the regulation.

EPA disagrees with the suggestion that the Agency finalize a mandatory size limitation for operating CCR surface impoundments. While limiting the volume of CCR surface impoundments to ten acre-feet would limit the volume of CCR released in the event of a structural failure, limiting the size of CCR surface impoundments to 10 acre-feet may not always be practicable; nor does EPA believe that such a restriction is truly necessary to ensure that the section 4004(a) standard will be met. Many CCR surface impoundments are much larger than ten acre-feet and have been operating for many years without a structural failure. While EPA acknowledges that this fact in no way guarantees that a failure will not occur, the Agency is convinced that the implementation of all of the combined regulatory requirements in this rule (e.g., location criteria, structural integrity, inflow design flood controls and inspection requirements) provides the necessary safeguards that will ensure that CCR surface impoundments are designed, constructed, operated, and maintained to minimize the risks associated with a catastrophic release of impounded CCR due to structural failure. While limiting the size of CCR surface impoundments will reduce risks because there will be a lower volume of waste in the unit, the Agency is not convinced that, in practice, such a requirement would meaningfully reduce the risks at many facilities. EPA expects

that such a restriction would only cause facilities to construct either several small units or a multi-unit system. Failure of one unit can lead to progressive failure of other units in the system, and thus, ultimately this may not reduce the total volume of waste that could be released into the environment. EPA also disagrees that structural stability requirements should only apply to "high" or "significant" potential hazard facilities. Similarly, EPA disagrees with commenters that structural integrity requirements should only apply to owners or operators of CCR surface impoundments that both meet the specified size criteria and have either a high hazard or significant hazard potential classification. Even for CCR units with a low hazard potential classification, EPA is still concerned with the risk to human health and the environment from any structural failure of a CCR unit. As discussed previously in Unit VI.C of this document, the environmental effects of the failure of even a low hazard potential impoundment can still be significant, given the size of these units, the nature of the material in the unit, and the potential volumes that could be released. Contamination of surface waters and groundwater resources is still a significant threat when CCR units of this size fail, irrespective of the lower likelihood that a release will affect human health, as reflected in the low hazard potential classification. Consequently, one focus of this rule is preventing any release, catastrophic or otherwise, of CCR to the environment, and limiting all structural stability requirements commenters suggested would be inconsistent with this goal.

The Agency agrees that the final regulation should incorporate provisions that address the hazards to the downstream public. Accordingly, the final rule incorporates a number of provisions consistent with the FEMA Guidelines, including a requirement that owners and operators know each CCR unit's hazard potential classification, as this is part of owners and operators' responsibility to actively ensure the integrity of their CCR unit(s) and that their operations do not endanger human health or the environment. EPA also agrees that the requirements should be differentiated based on the potential severity of the consequence posed by the unit's failure, and therefore the hazard potential can be relevant in determining the stringency of particular requirements. However, the hazard potential is, at best, only an indicator of the potential damage that may be incurred from the

⁷⁸ See: *Federal Guidelines for Dam Safety: Hazard Potential Classification for Dams*, Federal Emergency Management Agency ("FEMA") (reprinted January 2004). Under the FEMA dam safety classification system, a "low hazard potential classification" means that failure or mis-operation of the impoundment "results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to owner's property."

⁷⁹ See e.g., New Mexico Rules and Regulations Governing Dam Design, Construction and Dam Safety (e.g., requiring dam site security, an instrumentation plan for monitoring and evaluating dam performance, and an operation and maintenance manual and emergency action plan only for dams with a high or significant hazard potential); see also NMAC sections 19.25.12.11(G)-(J).

structural failure of the unit, and so EPA has generally not relied on hazard potential as the sole basis for determining the structural integrity requirements that are necessary for a CCR unit.⁸⁰ Although the hazard potential classification can serve as a proxy for the amount of water and CCR that could potentially be released to the environment in the event of a CCR surface impoundment failure, the amount of water and CCR potentially released is more directly correlated to the actual height and storage volume of the CCR surface impoundment. In addition, it is widely recognized that the hazard potential classification of an individual unit can often fail to encompass the overall magnitude of a release on human health and the environment. CCR surface impoundments can frequently be part of a facility's run-off system that is responsible for routing surface waters to a drainage basin or watershed. As previously discussed, the failure of a CCR unit that is part of such a system has the potential to inundate downstream surface water units and water bodies, resulting in progressive failures of other units, including other CCR surface impoundments at the facility, which in turn can have a much greater environmental impact than the failure of just the one unit for which a hazard potential classification was made. Using a "height and/or volume" threshold to determine the applicability of the structural integrity criteria ensures that CCR units with the potential to cause these progressive failures in downstream surface water management units are appropriately overseen and regulated. CCR surface impoundments exceeding a specified height and/or capacity threshold also pose a higher degree of risk of release of CCR to the environment than other types of CCR surface impoundments (e.g., incised or "small" CCR units). For all of these reasons, the size of the CCR unit, rather than the hazard potential classification, is the best indicator of potential severity of release of CCR to the environment and should therefore be the primary basis on which structural integrity criteria are applied. As such, EPA is promulgating, as proposed, a regulatory strategy that establishes some requirements for all CCR surface impoundments, but relies primarily on

size as the basis for determining the majority of the specific technical criteria for minimizing risk from structural failure.

Regarding the second major issue presented in the comments, as noted previously, EPA received comments requesting the Agency to provide either more specific regulatory language or further guidance in the preamble, so that parties could certify that the CCR surface impoundment met the rule's overall performance standard. Commenters contended that guidance would be particularly critical if EPA did not establish more specific technical criteria, as owners or operators will be vulnerable to lawsuits for non-compliance. In addition, state officials requested that EPA adopt more specific standards consistent with those adopted under FEMA's Federal Guidelines for Dam Safety. As discussed throughout this section in more detail, EPA has adopted clarifications to the regulation, particularly in the sections on structural stability and safety factors, to more precisely lay out the specific technical standards that are considered to be the "generally accepted and recognized good engineering practices" that must be met. EPA relied extensively on existing MSHA requirements, FEMA's Federal Guidelines for Dam Safety, and guidance issued by the U.S. Army Corps of Engineers, as they were applied throughout EPA's Assessment Program, to supplement the technical detail originally contained in the proposed rule. EPA has also modified the criteria, where necessary, so they better reflect the information and experience developed through the Assessment Program, e.g., the engineering criteria used to evaluate the CCR surface impoundments and to make recommendations to improve the structural stability of the units.

In this rule, the Agency is finalizing structural integrity criteria to ensure that CCR surface impoundments are designed, constructed, operated, and maintained in a manner that ensures the structural integrity of the CCR surface impoundment throughout its active life (i.e., through closure of the CCR unit), detects actual or potential releases of CCR as early as practicable, and prevents catastrophic failures. Many of the requirements have been adopted without revision from the proposed rule for some requirements, however, as noted EPA has provided additional language to clarify the final regulation. These clarifications have been made in response to comments urging EPA to finalize regulatory requirements that were more precise or sufficiently objective (i.e., a specific standard of

performance) to allow a qualified professional engineer to reasonably certify that the requirements of the rule have been met. These specific regulatory clarifications are discussed throughout this section.

A further change is that the final rule requires facilities to periodically reassess several elements of the structural integrity performance standards (i.e., re-assess every five years). Finally, in contrast to the programs established by MSHA and FEMA, the final rule establishes certain minimum requirements for all CCR surface impoundments. This is based on the fact that, unlike the dams regulated under other federal programs, the material in all CCR units is harmful, so even small releases can present environmental and human health concerns. But the majority of the structural integrity requirements vary depending on whether the CCR surface impoundment or lateral expansion exceeds particular size thresholds. The rulemaking record clearly demonstrates that these larger CCR surface impoundments present a greater risk of catastrophic failure, and therefore require a more robust set of regulatory requirements to ensure their continued structural integrity. The final rule's implementation of a size threshold for structural integrity requirements is consistent with the approach taken by the majority of dam safety programs and regulation.

These modifications are being made to better reflect the protections necessary to ensure that: (1) Structural integrity is maintained throughout the operational life of a CCR unit; and (2) the risk of catastrophic failure is minimized. The changes being made in this rule have been directly influenced by comments received, the observations and the conclusions drawn from EPA's Assessment Program, and the recommendations made by both MSHA and FEMA regarding dam safety. They are also generally consistent with the regulatory requirements of many other state and other federal agencies regulating dam safety.

1. Overview of Technical Criteria

Except for incised units, owners or operators of all existing and new CCR surface impoundments and any lateral expansion of these CCR units are required to: (1) Place a permanent identification marker on or immediately adjacent to the CCR units with the name associated with the CCR unit and the name of the owner or operator of the CCR unit; (2) conduct an initial hazard potential assessment to determine the current hazard potential classification of

⁸⁰ For example, EPA relied on hazard potential to trigger the requirement for an Emergency Action Plan, which will identify the actions necessary to minimize damage to life and property. As damage to life and property are the factors directly addressed in hazard potential classification, reliance on the classification is an appropriate determinant for this requirement.

the CCR unit; (3) conduct periodic (*i.e.*, every five years) hazard potential re-assessments; (4) develop an Emergency Action Plan (EAP) if the hazard potential classification of the CCR unit is classified as either a high- or significant hazard potential; and (5) maintain the CCR unit with vegetated slopes or other forms of slope protection.

Owners or operators of CCR surface impoundments that either have a height of five feet or more and a storage volume of 20 acre feet or more, or a height of 20 feet or more are required to comply with the following additional structural integrity criteria: (1) Document the design and construction of the CCR surface impoundment; (2) conduct an initial structural stability assessment; (3) conduct an initial safety factor assessment; and (4) conduct periodic (not to exceed five years) structural stability and safety factor assessments.⁸¹ Owners and operators of CCR units that fail to make the safety factor assessment or fail to meet the factors of safety specified in the rule must stop placing CCR in the unit and initiate closure.

The structural integrity requirements of the final rule require the compilation of construction history of the existing CCR surface impoundment within one year of the effective date of the rule.

Within two months of the effective date of the rule, the structural integrity requirements (§ 257.73) state that the owner or operator must install a permanent marker on the existing CCR surface impoundment. This timeframe is being promulgated as proposed, as EPA did not receive comments on the timeframe for installation of a permanent marker.

2. Structural Integrity Requirements Applicable to All CCR Surface Impoundments

a. Hazard Potential Classification Assessments

A hazard potential classification provides an indication of the potential for danger to life, development, or the environment in the event of a release of CCR from a surface impoundment. In this rule, an owner or operator of any existing or new CCR surface impoundment or any lateral expansion of a CCR surface impoundment must determine which of the following hazard potential classifications characterizes their particular CCR

unit.⁸² These classifications are: a high hazard potential CCR surface impoundment, a significant hazard potential CCR surface impoundment; and a low hazard potential CCR surface impoundment and are defined as follows:

- *High hazard potential CCR surface impoundment* means a diked surface impoundment where failure or mis-operation will probably cause loss of human life.

- *Significant hazard potential CCR surface impoundment* means a diked surface impoundment where failure or mis-operation results in no probable loss of human life, but can cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns.

- *Low hazard potential CCR surface impoundment* means a diked surface impoundment where failure or mis-operation results in no probable loss of life and low economic and/or environmental losses. Losses are principally limited to the surface impoundment's owner's property.

Owners and operators of all CCR surface impoundments must determine each unit's hazard potential classification through a hazard potential classification assessment. Hazard potential classification assessments must be certified by a qualified professional engineer and documentation must be provided that supports the basis for the current hazard potential rating. An initial hazard potential assessment must be conducted within one year of the effective date of the rule for existing units and prior to the initial receipt of CCR in the unit for new units or lateral expansions. Hazard potential classifications, structural stability assessments, and safety factor assessments require significant planning and coordination, such as detailed site-work and investigations, modeling and analysis, design and construction planning and implementation, and post-construction investigation. Many of these efforts take several months to

complete, compounded by the fact that much of the work cannot be completed in cold-weather or heavy-rain seasons.

As commenters noted, it is imperative that the owner or operator maintain a current assessment of a unit's hazard potential classification, rather than develop a single one-time classification "for which the facility was designed." (See proposed § 257.71(d)(10).) Moreover, FEMA recommends that a unit's hazard potential classification should be reviewed no less frequently than every five years in order to take into account changes in the factors that are the basis for which a hazard potential classification is made (*e.g.*, changed reservoir or downstream development).⁸³ Based on this information, EPA determined that a periodic reassessment of a CCR surface impoundment's hazard potential classification is a necessary component in maintaining the accuracy of the unit's hazard potential classification, as well as the overall safety of the unit. Consequently, EPA is requiring the owner or operator of a CCR surface impoundment to reassess the hazard potential classifications of their CCR unit and to have that classification, certified by a qualified professional engineer, at least every five years.

EPA has continued to rely on FEMA requirements as the basis for general CCR surface impoundment safety requirements, *e.g.*, inflow design flood selection, inspection criteria, earthquake analyses and design for several reasons: (1) Structural failure risks for CCR surface impoundments are similar to the risks from the larger dam universe for which FEMA intends its guidance; and (2) risks to downstream development from CCR surface impoundment failures are equal or similar to those presented by other types of dams' failures.

In this rule, hazard potential classifications define the consequences in the event of a failure of a CCR surface impoundment. The classification is separate from the structural stability of a CCR unit or the likelihood of the impoundment failing. A surface impoundment that meets or exceeds all of the structural stability criteria and safety factors of this rule would still be classified as "high hazard potential" if, in the event of failure, loss of life would be likely to occur.

⁸³ See: *Federal Guidelines for Dam Safety: Hazard Potential Classification for Dams*, Federal Emergency Management Agency ("FEMA") (reprinted January 2004). Under the FEMA dam safety classification system, a "low hazard potential classification" means that failure or mis-operation of the impoundment "results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to owner's property."

⁸¹ *Height* means the vertical measurement from the downstream toe of the CCR surface impoundment at its lowest point to the lowest elevation of the crest of the CCR surface impoundment.

⁸² Incised CCR surface impoundments are not required to perform a hazard potential classification assessment because hazard potential classifications are based on the failure of a dam, diked surface impoundment, or other water-retaining structure and the adverse incremental impacts that may result from the failure. Because incised CCR surface impoundments, as defined in this rule, do not have a diked portion which may fail, the incised CCR surface impoundment cannot have a hazard potential classification. This final rule covers CCR surface impoundment failures and releases due to other potential failure modes (*i.e.*, which do not pose an immediate catastrophic threat to human health or the environment), such as a release through the liner of the unit or through failure of underlying structures, in the location restrictions, design criteria, and operating criteria of the rule.

The hazard potential classification of the CCR surface impoundments is an essential element in determining how to properly design, construct, operate, and maintain a CCR surface impoundment. As such, the final rule bases the stringency of some technical requirements, in part, on the potential for adverse impacts on the failure of the CCR unit, as quantified by the hazard potential classification of this rule. Specifically, the requirements become more stringent as the potential for loss of life and/or property damage increases. This is reflected in both the criteria established under the structural stability assessments, .e.g., where the combined capacity of all spillways must adequately manage flow during and following peak discharge from the specified inflow design flood based on the hazard potential classification of the unit—and in the hydrologic and hydraulic capacity requirements, which are similarly specified based on the hazard potential classification of the CCR unit (see §§ 257.73(d)(2)(v); 257.74(d)(2)(v) and 257.82 respectively).⁸⁴ Additionally, high and significant hazard potential CCR surface impoundments must develop a written Emergency Action Plan which establishes emergency action procedures in the event of a previously defined emergency.

b. Emergency Action Plan

An Emergency Action Plan (EAP) is a document that identifies potential emergency conditions at a CCR surface impoundment and specifies actions to be followed to minimize loss of life and property damage. Typically an EAP includes: (1) Actions the owner or operator will take to moderate or alleviate a problem at the CCR unit; (2) actions the owner or operator will take, in coordination with emergency management authorities, to respond to incidents or emergencies related to the CCR surface impoundment; (3) procedures owner or operators will follow to issue early warning and notification message to responsible downstream emergency management authorities; (4) inundation maps to allow owners and operators of the CCR unit and emergency management authorities to identify critical infrastructure and population-at-risk sites that may require protective measures, warning and evacuation planning; and (5) delineation of the responsibilities of all those involved in

managing an incident or emergency and how the responsibilities should be coordinated and implemented.⁸⁵ As FEMA guidance suggests, and EPA reiterates here, the level of detail in the EAP should be commensurate with the potential impact of a surface impoundment failure or other operational incident (e.g., its hazard potential classification). A surface impoundment with low potential hazard impact should not require an extensive evaluation or be subject to an extensive planning process, while high-hazard and significant hazard surface impoundments would typically require a much larger emergency planning effort. In addition, high hazard and significant hazard surface impoundments tend to involve more entities that must coordinate responsibilities and greater efforts would generally be necessary to effectively respond to an incident with such a surface impoundment than to a similar incident involving a low-hazard surface impoundment. As such, every EAP must be tailored to specific site conditions.

EPA is promulgating, as proposed, a provision that requires any CCR surface impoundment that is determined by the owner or operator, through the certification by a qualified professional engineer, to be either a high hazard potential CCR surface impoundment or a significant hazard potential CCR surface impoundment to prepare and maintain a written EAP. While EPA agrees that the level of detail contained in an EAP should be commensurate with its hazard potential rating, EPA has concluded that at a minimum, the EAP must: (1) Define responsible persons and the actions to be taken in the event of a CCR surface impoundment-safety emergency; (2) provide contact information for emergency responders, including a map which delineates the downstream area which would be affected in the event of a failure and a physical description of the CCR surface impoundment; (3) include provisions for an annual face-to-face meeting or exercise between representatives of the owner or operator of the CCR unit and the local emergency responders; and (4) define conditions that initiate implementation of the EAP and define emergency response actions which must be implemented upon the detection of these conditions, including all persons responsible for the implementation of the emergency response actions. The first three of these four requirements

were proposed as part of the EAP and are being promulgated without revision. The fourth requirement, which requires facilities to explicitly define the conditions by which the EAP is activated, was inadvertently omitted from the proposal, and is being added to the final rule to ensure that the EAP includes at least the basic requirements necessary to function effectively.

The owner or operator must amend the written EAP whenever there is a change in conditions that would substantially affect the written EAP in effect, e.g., change in personnel, change in emergency responder contact information, a change in the CCR surface impoundments' designation from a significant-hazard potential classification to a high-hazard potential classification, or the vertical expansion of the CCR unit (i.e., increase in the amount of CCR that potentially could be released.) Consistent with the requirements for hazard potential classification reassessments, the Agency is requiring, at a minimum that the EAP be reassessed at least every five years. If an owner or operator determines that, as part of its periodic hazard potential reassessment that the unit no longer is classified as a high-hazard or a significant-hazard potential classification, but is now classified as a low hazard potential CCR surface impoundment, then the owner or operator of the CCR unit is no longer subject to the requirement to prepare and maintain an EAP, effective when such documentation is placed into the facility's operating record. If, however, during the reassessment effort it is determined that an existing CCR unit classified as a low hazard potential has been re-classified as either a significant-hazard or high-hazard potential, the owner or operation must prepare an EAP for the CCR unit within six months of completing such a periodic hazard potential re-assessment.

Although the owner or operator is responsible for developing and maintaining the EAP, which must be certified by a qualified professional engineer, the plan should be developed and implemented in close coordination with all applicable emergency management authorities, including the appropriate local, state, and federal authorities. Generally, these coordination efforts, along with the EAP, provide emergency management authorities with the necessary information to facilitate the implementation of their responsibilities, and so, it is vital that the development of the EAP be coordinated with emergency responders and other entities, agencies, and jurisdictions, as

⁸⁴ A high-hazard potential impoundment, for example, must be designed with sufficient spillway capacity to manage flow from the probable maximum flood, whereas a low hazard potential unit need only account for a 100 year flood.

⁸⁵ See: "Federal Guidelines for Dam Safety: Emergency Action Planning for Dams," FEMA 64/ July 2013.A.

appropriate. After the initial EAP has been developed and placed in the operating record and on the owner or operator's internet site, it should be periodically reviewed and updated on a regular basis, as it can become outdated and ineffective. While the Agency is only requiring the EAP to be re-assessed every five years, it is recommended that the EAP be reviewed at least annually for appropriateness, accuracy, and adequacy so as to remain current. EPA recommends that the EAP be promptly updated to address changes in personnel, contact information and/or significant changes to the facility or emergency procedures. Even if no revisions are necessary, the review should be documented.

The initial EAP must be prepared within 18 months from the effective date of the rule. In order to prepare an EAP, the owner or operator must accurately and comprehensively identify potential failure modes and at-risk development, and therefore completion of the emergency action plan needs to follow the completion of the initial hazard potential classification, structural stability assessment, and safety factor assessments, during which this information will be generated.

c. Vegetated Slopes of Dikes and Surrounding Areas

EPA proposed to require both new and existing CCR surface impoundments that exceed the MSHA size thresholds to document the slope protection measures that have been adopted and to compute the minimum factors of safety for slope stability, in order to support the certification from an independent professional engineer that the unit has been designed in accordance with "generally accepted engineering standards." EPA is promulgating the requirement that all CCR surface impoundments have adequate slope protection because EPA determined through the Assessment Program that slope protection is an essential element in preventing slope erosion and subsequent deterioration of CCR unit slopes. EPA is requiring slope protection for all units, not just units exceeding the size threshold of the final rule, because EPA has identified that slope protection on CCR units is a generally accepted good practice which reduces the occurrence of erosion, degradation of surface waters due to run-off from the CCR unit, enhances slope stability, and that vegetated cover is an easily accomplished practice in the vast majority of climates where CCR surface impoundments are located. In conducting the Assessment Program, the

protective cover of slopes of the CCR surface impoundment was determined to be relevant to the overall condition rating of all units, irrespective of size. This is consistent with FEMA guidance, which also lays out specifications for the ideal vegetative cover for a dam. EPA has adopted this requirement to be consistent with its findings from the Assessment Program, and in response to comments, and has elaborated on the slope protection measures necessary to achieve the factors of safety. The final rule provides performance standards drawn primarily from FEMA guidance, as applied during the Assessment Program.

All CCR surface impoundments are required to be designed, constructed, operated, and maintained with adequate slope protection to protect against surface erosion at the site. Slope protection is necessary to ensure that dike or embankment erosion does not occur. Additionally, slope protection is required of all CCR surface impoundments to maintain the stability of the CCR surface impoundment slope under rapid drawdown events⁸⁶ and low pool conditions of water bodies that may abut the CCR surface impoundment and are outside the control of the owner or operator, e.g., a natural river which the slopes of the CCR surface impoundment run down to and abut. The slope protection can act as a stabilizer in the slope of the embankment during rapid drawdown events. Adequate slope protection can be achieved in most climates through simple vegetation, typically a healthy, dense stand of low-growing grass, or other similar vegetative cover. In arid climates where the upkeep of vegetation is inhibited, alternate forms of slope protection, including rip-rap, or rock-armor is typically used. Additional slope protective measures are available and effective in certain circumstances, including but not limited to rock, wooden pile, or concrete revetments, vegetated wave berms, concrete facing, gabions, geotextiles, or fascines.

The owner or operator must ensure that the slopes of the CCR surface impoundment are protected from erosion by appropriate engineering slope protection measures. It is recommended throughout embankment technical literature that vegetative cover

⁸⁶ This rapid drawdown is not included in the rule's factors of safety assessments. The protection against rapid drawdown requirement of this provision is concerned with the rapid drawdown of adjacent water bodies acting upon the downstream slope of the CCR surface impoundment rather than the rapid drawdown of the impounded reservoir of the CCR surface impoundment acting upon the upstream slope of the CCR surface impoundment.

not be permitted to root too deeply, precipitating internal embankment issues. The rule requires a vegetative cover limit to prevent the establishment of rooted vegetation, such as a tree or a bush on the CCR surface impoundment slope. EPA has concluded that a vegetative cover of no more than six inches above the face of the embankment is adequate and is the uppermost limit for vegetative cover height for this final rule. In developing this requirement, EPA was strongly influenced by information contained in the FEMA document entitled, "Technical Manual for Dam Owners: Impacts of Plants on Earthen Dams"⁸⁷ in determining an appropriate vegetative cover height for CCR surface impoundments. Six inches represents a vegetative height which prevents any trees, bushes, or shrubbery from rooting deeply enough to warrant additional removal measures outside of simple mowing. Furthermore, the height prescribed by the final rule represents a maximum height of vegetative cover to allow for adequate observation of the slope of the CCR unit during inspection. Vegetative cover in excess of six inches above the slope of the dike would prevent the adequate observation of the slope of the CCR unit and detection of structural concerns such as animal burrows and minor sloughs, amongst others concerns. Consistent with FEMA guidance, as applied during the Assessment Program, other slope protection, such as rock armoring or vegetated berms, would also be considered adequate.⁸⁸

3. Structural Integrity Criteria Applicable to CCR Surface Impoundments Exceeding a Specific Size Threshold

The structural integrity criteria discussed in this section of the preamble apply to existing and new CCR surface impoundments and any lateral expansion with: (1) A height of five feet or more and a storage volume of 20 acre-feet or more; or (2) a height of 20 feet or more. The rule defines *height* as the vertical measurement from the downstream toe of the CCR surface impoundment at its lowest point to the lowest elevation of the crest of the CCR surface impoundment. The *downstream toe* is defined as the junction of the downstream slope or face of the CCR surface impoundment with the ground surface. This final rule considers the lowest elevation of the crest of the CCR

⁸⁷ <http://www.fema.gov/media-library-data/20130726-1446-20490-2338/fema-534.pdf>.

⁸⁸ <http://www.fema.gov/media-library-data/20130726-1446-20490-2338/fema-534.pdf>.

surface impoundment to be the maximum storage elevation of the reservoir or pool of the CCR unit, *e.g.*, the invert of the lowest-elevation spillway. EPA is implementing this size threshold because it comports with thresholds established by other federal and state agencies regulating dam integrity and/or safety. Specifically, for the implementation of the size threshold of this final rule, EPA relied on the identical size parameters, *i.e.*, height of five feet and capacity of 20 acre-feet, which is promulgated in MSHA coal slurry impoundment regulations in 30 CFR 77.216.

In the proposed rule, EPA used the size cut-off promulgated by MSHA in their dam safety requirements for coal slurry impoundments at 30 CFR part 77. In proposing this cut-off, EPA reasoned that the MSHA requirements affecting coal slurry impoundments were directly applicable and relevant to CCR surface impoundments and provided a size threshold that, when applied to the rule's structural integrity criteria, would generally meet RCRA's mandate to ensure protection of human health and the environment by minimizing the potential for catastrophic failure. Specifically, EPA proposed that surface impoundments: (1) Impounding CCR to an elevation of five feet or more above the upstream toe of the structure and can have a storage volume of 20 acre-feet or more; or (2) impounding CCR to an elevation of 20 feet or more above the upstream toe of the structure would be subject to the structural stability criteria. EPA also proposed to define *upstream toe* as the junction of the upstream slope of the dam with the ground surface, with the height of the CCR unit measured from the upstream toe or water-borne toe of the CCR unit.

While little comment was received on adopting this size threshold or the accompanying definition of *upstream toe*, the Agency was concerned that the size threshold presented in the proposed rule did not reflect standard measuring protocols used by other federal agencies and the dam sector in determining the size of a dam or, in the case of this rule, surface impoundment. Of particular concern to the Agency was the fact that EPA's own Assessment Program was measuring the height of a CCR unit from the downstream toe rather than the upstream toe, which was specified in the MSHA regulatory requirement and the subsequent CCR proposed rule.

A review of MSHA, FEMA and the USACE regulations and guidance, as well as the guidance of several state agencies that oversee dam safety, revealed that dam or surface

impoundment height is more appropriately measured from the downstream and not the upstream toe of the unit. EPA based this conclusion on the near-universal position of dam safety guidance that the downstream slope height of the dike is of primary concern in the design, construction, operation, and maintenance of the dam or surface impoundment. Virtually all of the dam safety regulations, including state and federal guidance and regulations, that EPA reviewed considered measured dam height to be taken from the downstream slope of the dike. Some of these guidance and regulations include FEMA "Federal Guidelines for Dam Safety," U.S. Army Corps "National Inventory of Dams," and MSHA Metal and Nonmetal Tailings and Water Impoundment Inspection requirements in 30 CFR part 56 and § 57.20010.⁸⁹ This information, coupled with the information on the methodology used in the Assessments Program, convinced the Agency that a revised description of the CCR surface impoundment size cutoff was necessary, specifically requiring the height of the CCR unit to be measured from the downstream toe.

a. Design and Construction Information

The first element of the structural integrity criteria applicable to CCR units exceeding the specified size threshold requires the owner or operator to compile and place in the operating record design and construction information pertaining to the CCR unit. Among other things, this provision requires the following documentation to be provided by the owner or operator: (1) The name of the owner or operator of the unit; (2) the name of the unit; and (3) any identification number assigned by the state. In addition, it requires that the owner or operator identify: (5) The location of the CCR unit on a U.S. Geological Survey Map or a topographic map of equivalent scale; (6) provide dimensional drawings of the CCR unit with pertinent engineering structures and appurtenances identified; (7) describe the purpose of the CCR unit; and (8) identify the name and size of the watershed affecting the CCR unit, if any. Detailed information is also required documenting: (9) The design and construction of the unit including dates and descriptions of each zone or stage constructed; (10) instrumentation used to monitor the operation of the CCR unit, (11) spillway and diversion design descriptions and construction specifications; and (12) provisions for

surveillance, maintenance and repair of the CCR unit.

While these requirements apply to both existing and new CCR surface impoundments, existing CCR surface impoundments are required to compile this information only "to the extent available," within one year of the effective date of the rule. Conversely, new CCR surface impoundments or any lateral expansion must compile all of the information listed prior to the initial receipt of CCR. For existing CCR surface impoundments, EPA acknowledges that much of the construction history of the surface impoundment maybe unknown or lost. EPA's Assessment Program confirmed that many owners or operators of CCR units did not possess documentation on the construction history or operation of the CCR unit. Information regarding construction materials, expansions or contractions of units, operational history, and history of events was frequently difficult for the owners or operators to obtain. The Assessment Program also confirmed the Agency's initial assumption that this information, in many instances, will be difficult to compile. Therefore, in this rule, EPA is using the phrase "to the extent available" and clarifying that the term requires the owner or operator to provide information on the history of construction only to the extent that such information is reasonably and readily available. EPA intends facilities to provide relevant design and construction information only if factual documentation exists. EPA does not expect owners or operators to generate new information or provide anecdotal or speculative information regarding the CCR surface impoundment's design and construction history.

There are several other requirements under the design and construction criteria requiring clarification. First, the Agency is amending the requirement that all dimensional drawings of the CCR unit (see § 257.73(b)(vii) and § 257.74(b)(vii)) use a uniform scale of one inch equals 100 feet. After further consideration, EPA has deleted this requirement and has replaced the proposed scale of 1 inch equals 100 feet with the phrase "at a scale that details engineering structures and appurtenances relevant to the design, construction, operation, and maintenance of the CCR unit." EPA made this change in response to comments arguing that this level of detail was unnecessary. EPA agrees that, given the extremely large variety in the size of CCR units, a prescriptive scale for all drawings of all CCR units is not necessary in many cases; this level of detail would be excessive for most

⁸⁹ <http://www.msha.gov/regs/compliance/PILS/2013/PIL13-IV-01.asp>.

units. The Agency is also clarifying, (see § 257.73(b)(2) and § 257.74(b)(2)) that if an owner or operator determines that a significant change has occurred in the information/documentation previously compiled under this provision, the owner or operator must update the relevant information and place it in the operating record.

b. Types of Assessments

A second element of the structural integrity criteria is the requirement for specific technical assessments of the CCR unit. Consistent with the requirements outlined in the proposed rule, two technical assessments are required for all CCR units exceeding the specified size threshold: (1) A structural stability assessment; and (2) a safety factor assessment. The owner or operator of an existing CCR surface impoundment is required to conduct an initial assessment addressing both structural stability and safety factors within one year of the effective date of the rule. New CCR surface impoundments or any lateral expansion of a CCR unit are required to complete the initial assessment prior to placing CCR into the unit. Following the initial assessments, EPA is also requiring periodic re-assessments of both a CCR surface impoundment's structural stability and factors of safety. EPA proposed to require an annual recertification, but in a departure from the proposed rule, EPA is only requiring these re-assessments to be conducted on a regular basis, not to exceed once every five years. In making this regulatory change, the Agency has relied heavily on the dam safety guidance established by FEMA in the document titled, *Federal Guidelines for Dam Safety* that a formal inspection, including ". . . a review to determine if the structures (i.e., CCR surface impoundments) meet current accepted design criteria and practices . . ." be taken at an interval not to exceed five years. EPA has interpreted this guidance to be applicable to both the structural stability assessment and the safety factor assessment.

A demonstration must be completed within the assessment period for the specific type of assessment. This means that, within this timeframe the owner or operator must demonstrate that the CCR unit meets all of the requirements of each type of assessment, as certified by a qualified professional engineer. It also means that the owner or operator must have taken all measures necessary to bring the unit into compliance with all of the requirements for assessments of this final rule within the assessment period. If the owner or operator cannot

demonstrate that the unit meets these factors of safety (or otherwise fails to comply with the structural stability requirements) within the appropriate timeframe, the unit must initiate closure.

i. Periodic Structural Stability Assessments

In order to ensure the proper upkeep and operation of the CCR unit, the owner or operator must demonstrate that the CCR surface impoundment has been designed, constructed, operated and maintained to provide structural stability. Specifically, consistent with the proposal, the final rule requires the owner or operator to demonstrate that the design, construction, operation, and maintenance of the CCR surface impoundment is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and water that can be impounded therein. As discussed previously, EPA has elaborated on this overall performance standard in response to comments from the engineers who would be required to make these certifications, urging EPA to specify more precisely the standards that must be met. Specifically the final rule focuses on the critical structural aspects of the CCR surface impoundment that EPA identified in the proposed rule, and identifies the minimum elements that a professional engineer must provide engineering details on or otherwise address. In certain cases, the final criteria identify specific engineering performance standards. EPA relied on existing MSHA requirements, FEMA dam safety guidance, and guidance issued by the USACE, as applied throughout EPA's Assessment Program to develop these criteria. Consistent with the proposal, these demonstrations must be certified by a qualified professional engineer. Each of these criteria is discussed in more detail below.

In addition to implementing adequate slope protection against erosion, which is a structural stability requirement applicable to all CCR units, the owner or operator of a CCR surface impoundment exceeding the specified size threshold must demonstrate that the unit, including any vertical and lateral expansions, is constructed with "stable foundations and abutments." A stable foundation is an essential element of surface impoundment construction and prevents differential settlement of the embankment which can result in adverse internal stresses with the embankment cross-section. Soils tend to consolidate when subjected to loadings for extended periods, which can lead to

strain incompatibility, a phenomena which prevents the full development of peak strength of the foundation. The stability of foundations and abutments can be determined by engineering monitoring, representative soil sampling, and modeling. Similarly, cohesion between the abutments of the CCR surface impoundment and the embankment of the CCR surface impoundment is critical. Frequently, CCR surface impoundments are subject to cracking and excessive seepage and piping in the groins where the abutment and embankment meet. These adverse conditions may lead to further structural deficiencies which threaten the safety of the CCR surface impoundment.

Consistent with general engineering construction methodologies, the structural stability assessment also requires the owner or operator to determine whether the CCR surface impoundment has been mechanically compacted to a density sufficient to withstand the range of loading conditions in the CCR unit.⁹⁰ Compaction of a dike or embankment is considered essential, as the compaction of soils leads to an increase in density and subsequently strength. Soil mechanics theory has established that the density of a soil corresponds to the moisture content and strength of the soil. The rule requires the owner or operator make this determination for all dikes of a CCR surface impoundment.

EPA notes that a number of existing voluntary consensus standards are available that can be useful in making this determination. For example, ASTM D 698 establishes a performance standard of 95% of the maximum standard Proctor density. Similarly, ASTM D 1557 establishes a standard of 90% of the maximum modified Proctor density. Alternatively, in certain instances, such as soils consisting of more than 30% material retained on the 3/4 in. sieve, Proctor testing is not appropriate and the relative density criteria can be met. In such cases, EPA recommends a 70% relative density. These specific soil compaction criteria are ubiquitous throughout engineering construction as sufficient to support engineered works based on the requirements. They are also consistent with the standards promulgated by the state of New Mexico's dam safety program in order to ensure proper compaction during construction of new CCR surface impoundments.

EPA recognizes that it would be highly difficult for owners or operators

⁹⁰ http://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_1110-2-2300.pdf.

of older units to certify with any certainty that the unit's construction meets the specific numeric compaction criteria found in the ASTM standards. New units, however, can easily meet these standards, and should therefore be designed and constructed to meet the numeric compaction criteria.

The owner or operator must also design, construct, operate, and maintain the CCR surface impoundment spillway or spillways with appropriate material so as to prevent the degradation of the spillway, as well as to ensure that the CCR surface impoundment has adequate spillway capacity to manage the outflow from a specific inflow design flood. In addition, a demonstration must be made that the CCR surface impoundment has been designed, constructed, operated, and maintained with inflow design flood controls and/or spillway capacity to manage peak discharge during and following inflow design floods. This demonstration is required to ensure the CCR surface impoundments will have adequate hydrologic and hydraulic capacity to prevent such failures as overtopping and excessive internal seepage and erosion. Spillways must be designed to withstand discharge from the inflow design flood without losing their structural form and leading to discharge issues, such as erosion or overtopping of the embankment. This requirement is covered in more detail in the hydrologic and hydraulic capacity requirements for CCR surface impoundments section of this rule.

EPA is not requiring a facility to include any demonstration relating to the potential for rapid, or sudden, drawdown loading condition. Rapid or sudden drawdown is a condition in earthen embankments in which the embankment becomes saturated through seepage in an extended high pool elevation in the reservoir. A threat to the embankment emerges when the reservoir pool is drawn down or lowered at a rate significantly higher than the excess pore water pressure within the embankment can diminish. Typically, rapid drawdown scenarios are considered for embankments with reservoirs used for water supply and management, emergency reservoirs, or agricultural supply, in which the reservoir is rapidly discharged from the structure. In these scenarios, a high pool elevation is maintained in the reservoir in storage months. Subsequently, the water supply is drawn on in months where there is a high demand for the reservoir's contents. This drawing down of the pool can affect the structural stability of the unit. However, the management of CCR surface impoundments differs from that of

conventional water supply, emergency, and agricultural reservoirs. The only instance of a rapid drawdown of a CCR surface impoundment which EPA has identified is in the event of a massive release of the reservoir of the CCR surface impoundment due to a failure of the dike of the CCR surface impoundment. In this instance, a massive release has occurred or is occurring. A subsequent failure of the upstream or internal embankment due to this rapid drawdown would only precipitate further embankment failure and not any further release of the contents of the impoundment, as the contents of the surface impoundment would have already been released. In these instances, remediation of a failure in a rapidly drawn-down section would be necessary prior to filling of the unit, but is not a concern precipitating a release of impounded contents.

A second consideration regarding rapid drawdown, however, is the rapid drawdown of a water body adjacent to the slope of the CCR surface impoundment which may periodically inundate the slope. Many CCR surface impoundments are located in areas in which the downstream slope of the CCR surface impoundment runs down to a lake, stream, or river. In such instances, rapid drawdown must be considered for the stability of the downstream slope of the embankment in the event of a rapid drawdown in the lake, stream, or river pool elevation or stage. Because the water ponded against the downstream slope of the CCR surface impoundment provides a stabilizing load on the slope of the CCR surface impoundment, the rapid or gradual loss of this stabilizing force must be considered in the analysis of the CCR surface impoundment. The rule, therefore, requires that existing and new CCR surface impoundments and any lateral expansions of such units with a downstream slope that can be inundated by an adjacent water body, such as rivers, streams, or lakes, be constructed with downstream slopes that will maintain structural integrity in events of low pool or rapid drawdown of the adjacent water body. This ensures that the structural integrity of the downstream slope of the CCR surface impoundment will be maintained, even though the conditions of an adjacent surface water body may be outside the owner or operator's control.

ii. Periodic Safety Factor Assessments

As previously discussed, EPA received comment requesting the Agency to supplement the proposed technical criteria to assist owners or operators of CCR surface impoundments in interpreting the factor of safety

determination required by proposed § 257.71(d)(12). EPA proposed that facilities compute "a minimum factor of safety for slope stability of the CCR retaining structure(s)," and to provide the methods and calculations used to determine each factor of safety. In reviewing the proposed requirement, the Agency agrees that further elaboration on the requirement is necessary to ensure that engineers can accurately assess a CCR unit's structural stability using factor of safety calculations, and would be valuable to ensure a consistent national standard. EPA has therefore revised the criteria to be consistent with the criteria developed and used to assess these impoundments as part of the Assessment Program.

Accordingly, the final rule requires demonstrations of structural integrity using accepted engineering methodologies under specific loading conditions. Owners or operators must conduct and have certified by a qualified professional engineer, an initial assessment, supported by the appropriate engineering calculations, documenting whether the CCR unit achieves the following minimum factors of safety: (1) The calculated static factor of safety under the long-term, maximum storage pool loading condition, which must equal or exceed 1.50; (2) the calculated static factor of safety under the maximum surcharge pool loading condition, which must equal or exceed 1.40; (3) the calculated seismic factor of safety, which must equal or exceed 1.00; and (4) the calculated liquefaction factor of safety, which must equal or exceed 1.20. In addition to the safety factors specified for existing CCR surface impoundments, new CCR surface impoundments and any lateral expansion must also comply with a fifth safety factor, the calculated static factor of safety under the end-of-construction loading condition, which must equal or exceed 1.30.

The minimum static factors of safety are adopted directly from the USACE's Engineer Manual EM 1110-2-1902 entitled, "Slope Stability." As discussed in more detail in Unit III of this document, EPA relied heavily on this manual and applied these specific factors of safety during its Assessment Program, and it is widely considered the benchmark in the dam engineering community for slope stability and methodology and analysis.

The seismic factor of safety is adopted from review of several dam safety guidance documents, including USACE guidance Engineer Circular 1110-2-6061: Safety of Dams-Policy and Procedures 2204, Engineer Circular

1110–2–6000: Selection of Design Earthquakes and Associated Ground Motions 2008, and Engineer Circular 1110–2–6001: Dynamic Stability of Embankment Dams 2004. EPA also reviewed MSHA’s 2009 Engineering and Design Manual for Coal Refuse Disposal Facilities, in particular Chapter 7, “Seismic Design: Stability and Deformation Analyses.” These documents are viewed by ASDSO, FEMA and MSHA as generally accepted guidance on how to conduct seismic stability analyses. EPA chose the factor of safety of 1.00 because the 1.00 quantity represents the condition of the slope in which the strength of resistance to loading is equal to the anticipated loading stress acting upon the embankment, or the value which represents stability under the appropriate loading condition.

The liquefaction factor of safety is adopted from review of several dam safety guidance and liquefaction guidance, including “Soil Liquefaction During Earthquakes,” Idriss and Boulanger, Earthquake Engineering Research Institute, 2008,⁹¹ “Geotechnical and Stability Analyses for Ohio Waste Containment Facilities,” Ohio EPA, Sept. 14, 2004, Chapter 5,⁹² and *Federal Guidelines for Dam Safety: Earthquake Analyses and Design of Dams*, Document 65, FEMA May 2005.⁹³ EPA also reviewed several technical resources regarding soil liquefaction, including “Ground Motions and Soil Liquefaction During Earthquakes,” Seed and Idriss, 1982,⁹⁴ “Liquefaction Resistance of Soils: Summary report from the 1996 and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils,” Youd and Idriss, 2001,⁹⁵ and *Seismic Design Guidance for Municipal Solid Waste Landfill Facilities*, US EPA, Office of Research and Development, 1995. EPA chose a liquefaction factor of safety of 1.20, identifying that consideration of liquefaction potential and post-liquefaction residual strength slope stability included several uncertainties

in assumptions and analysis which must be accounted for in a factor of safety above unity (*i.e.*, 1.00). FEMA guidance explicitly states that “post-liquefaction factors of safety are generally required to be a minimum of 1.2 to 1.3.”

In conjunction with this requirement, EPA continues to require periodic reassessments of the safety factor calculations, but as discussed, has modified the frequency to be no less than once every five years for all affected CCR units. Periodic reassessments are necessary to account for factors that are subject to change and can adversely affect the structural stability of a CCR unit, *e.g.*, age, use, volume of material contained within, and to reflect the dynamic nature of a CCR surface impoundment and the loads to which the dikes of the CCR surface impoundment may reasonably be expected to become subject to both the requirement to periodically reassess safety factor calculations and the five-year timeframes are consistent with the guidance set forth by other federal agencies in assessing dam safety, including MSHA, FEMA, and the USACE. For example, FEMA’s *Federal Guidelines for Dam Safety* explicitly recommends that a dam be formally reassessed at an interval not to exceed every five years, and EPA has adopted this minimum frequency of assessment in this final rule.

(a) General Safety Factor Assessment Considerations

Generally accepted engineering methodologies specify that the determination of the structural stability factors of safety specified above is to be calculated by the qualified professional engineer using conventional analysis procedures or, if necessary, special analysis procedures. Conventional analysis procedures include, but are not limited to, limit equilibrium methods of slope stability analysis, whereas, special analysis procedures include, but are not limited to, finite element methods, finite difference methods, three-dimensional methods, or probabilistic methods. Whichever methodology is used to determine the factors of safety of the CCR surface impoundment, the qualified professional engineer must document the methodology used, as well as the basis for using that methodology, and the analysis must be supported by appropriate engineering calculations.

Limit equilibrium methods compare forces, moments, and stresses which cause instability of the mass of the embankment to those which resist that instability. The principle of the limit

equilibrium method is to assume that if the slope under consideration were about to fail, or at the structural limit of failure, then one must determine the resulting shear stresses along the expected failure surface. These determined shear stresses are then compared with the shear strength of the soils along the expected failure surface to determine the factor of safety. Limit equilibrium methods include, but are not limited to, methods of slices. The most commonly applicable method of slices are the ordinary method of slices or Modified Swedish Method, Bishop’s Modified Method, force equilibrium methods, Janbu’s method, Morgenstern and Price’s method, or Spencer’s Method.

If conventional analysis procedures yield results that indicate complex failure mechanisms or the need for estimation of displacements, such as the need to determine internal stresses or displacements in an embankment or account for 3-dimensional effects in an embankment, special analysis procedures may be necessary to calculate factors of safety. Special analysis procedures include, but are not limited to: (1) The finite element method; (2) the finite difference method; (3) the three-dimensional limit equilibrium analysis method; or (4) the probabilistic method.⁹⁶

Structural stability factors of safety need to be met in all cross-sections of the CCR surface impoundment since the failure of any cross-section of the CCR surface impoundment can result in the loss of the reservoir and stored CCR material in the CCR surface impoundment. However, it is not necessary to require the facility to fully analyze and calculate factors of safety for all cross sections under the specific loading conditions identified above. Rather, it is sufficient to calculate the factors of safety under both static, seismic, and liquefaction loading conditions only for the critical cross section of the CCR surface impoundment embankment, provided the facility carefully analyzes each cross section to properly identify the critical cross section. EPA has adopted this approach because the critical cross-section(s) represents a “most-severe” case and it is reasonably anticipated that all other cross-sections of the embankment will exceed the calculated factors of safety of the critical cross-section(s). The final rule therefore adopts this approach. The final rule

⁹¹ <https://www.eeri.org/products-page/monographs/soil-liquefaction-during-earthquakes-3/>.

⁹² http://epa.ohio.gov/portals/34/document/guidance/gd_660.pdf.

⁹³ <http://www.ferc.gov/industries/hydropower/safety/guidelines/fema-65.pdf>.

⁹⁴ Seed, H.B., and Idriss, I.M., 1982, “Ground Motions and Soil Liquefaction During Earthquakes,” Monograph No. 5, Earthquake Engineering Research Institute, Berkeley, California, pp. 134.

⁹⁵ Youd, T.L., Idriss, I.M., 2001, “Liquefaction Resistance of Soils: Summary report from the 1996 and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils.” *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE.

⁹⁶ Additional information regarding special analysis methodologies can be found in publications from the U.S. Army Corps of Engineers Engineering Publications or geotechnical journals and scholarly articles.

defines the critical cross section of the embankment of a CCR surface impoundment to be that which is anticipated to be most susceptible amongst all cross sections of the embankment to structural failure based on several engineering considerations for the given loading condition, such as soil composition of the cross-section, phreatic surface level within the cross section, grade of the upstream and downstream slopes of the cross section, and presence or lack of reinforcing measures in the cross-section as opposed to other cross-sections, such as buttressing or slope protection on the slopes of the cross section. Due to the variance of qualitative and quantitative properties of embankment structural strength, EPA expects that a prudent engineering analysis will need to consider multiple cross sections to ensure proper selection of a critical cross section.

(b) The Calculated Static Factor of Safety Under the Long-Term, Maximum Storage Pool Loading Condition

It is generally accepted practice to analyze the stability of the downstream slope of the dam embankment for steady-state seepage (or steady seepage) conditions with the reservoir at its normal operating pool elevation (usually the spillway crest elevation) since this is the loading condition the embankment will experience most. This condition is called steady seepage with maximum storage pool. The maximum storage pool loading is the maximum water level that can be maintained that will result in the full development of a steady-state seepage condition. Maximum storage pool loading conditions need to be calculated to ensure that the CCR surface impoundment can withstand a maximum expected pool elevation with full development of saturation in the embankment under long-term loading. The final rule requires that the calculated static factor of safety for the critical cross section of the CCR surface impoundment under the long-term maximum storage pool loading condition meet or exceed 1.5. The generally accepted methodology for determining the long-term, maximum storage pool loading condition considers conditions at the CCR surface impoundment that exist for a length of time sufficient for steady-state seepage or hydrostatic conditions to fully develop within the embankment of the CCR unit.⁹⁷ The maximum storage pool loading needs to consider a pool

elevation in the CCR unit that is equivalent to the lowest elevation of the invert of the spillway, *i.e.*, the lowest overflow point of the perimeter of the embankment. The generally accepted methodology for the calculation of the factors of safety uses shear strengths expressed as effective stress and with pore water pressures that correspond to the long-term condition. Pore-water pressures should be estimated from the most reliable of the following sources: (1) Field measurements of pore pressures in existing slopes; (2) past experience and judgment of the qualified professional engineer; (3) hydrostatic pressure computation for conditions of no flow; or (4) steady-state seepage analysis using flow nets or finite element analyses.

(c) The Calculated Static Factor of Safety Under the Maximum Surcharge Pool Loading Condition

The maximum surcharge pool loading condition is calculated to evaluate the effect of a raised level (*e.g.*, flood surcharge) on the stability of the downstream slope. This ensures that the CCR surface impoundment can withstand a temporary rise in pool elevation above the maximum storage pool elevation for which the CCR surface impoundment may normally be subject under inflow design flood stage, for a short-term until the inflow design flood is passed through the CCR surface impoundment. The final rule requires that the calculated static factor of safety for the critical cross section of the CCR surface impoundment under the long-term maximum surcharge pool loading condition meet or exceed 1.4.

Similar to the long-term, maximum loading condition, a prudent evaluation of the maximum surcharge pool loading condition needs to consider conditions at the CCR unit to exist for a length of time sufficient for steady-state seepage or hydrostatic conditions to fully develop within the embankment of the CCR surface impoundment. The maximum surcharge pool is considered a temporary pool that is higher than the maximum storage pool; the maximum surcharge loading condition should therefore consider a temporary condition in the pool at which the pool exists temporarily above the maximum storage pool elevation in the event of an inflow design flood and spillway discharge condition in the reservoir, *i.e.*, above the lowest invert of the spillway during the anticipated inflow design flood.

(d) The Calculated Seismic Factor of Safety

All CCR surface impoundments, including any lateral expansions that exceed the size threshold must meet a seismic factor of safety equal to or greater than 1.0. EPA has included this requirement because the mechanics and response phenomena of geotechnical structures vary radically under dynamic loading from those under static loading. Consequently, reliance on the factors of safety under static loading is not sufficient to evaluate the structural stability of a CCR surface impoundment. Standard engineering methodology and guidance support EPA's conclusion that adequate seismic analysis of embanked structures is essential to ensure the continued structural stability of a geotechnical structure under dynamic, or seismic, loading is warranted.⁹⁸

As discussed in the section of this preamble addressing the location criteria, all CCR surface impoundments must also be capable of withstanding a design earthquake without damage to the foundation or embankment that would cause a discharge of its contents. To further support the location criteria established in this rule, CCR surface impoundments and any lateral expansion exceeding a specific height and/or volume threshold must be assessed under seismic loading conditions for a seismic loading event with a 2% probability of exceedance in 50 years, equivalent to a return period of approximately 2,500 years, based on the USGS seismic hazard maps for seismic events with this return period for the region where the CCR unit is located. EPA chose the 2% exceedance probability in 50 years event based on its common use in seismic design criteria throughout engineering. See for example, ASCE 7 *Minimum Design Loads for Buildings and Other Structures, International Building Code*. Moreover, USGS seismic hazard maps, dictate that the life of a structure and the realistic probability of event occurrence be considered in the design of lateral force resisting systems for structures. As discussed in the Regulatory Impact Assessment, the expected life of a CCR surface impoundment can exceed 50 years. Consistent with the location criteria for seismic impact zones, EPA adopted 2% as a reasonable probability of occurrence.

Under standard engineering methodologies, seismic analysis includes several procedures to adequately analyze the structural

⁹⁷ U.S. Army Corps of Engineers "Slope Stability" manual.

⁹⁸ *E.g.*, FEMA's *Federal Guidelines for Dam Safety: Earthquake Analyses and Design of Dams*.

strength of a CCR surface impoundment during dynamic, *i.e.*, seismic, loading. Such analyses would typically need to include the appropriate characterization of ground motions at the site of the CCR surface impoundment for the 2% probability in 50 years seismic event.⁹⁹ In addition, the peak ground acceleration (PGA), velocity, and displacement should be selected using historic records, site-specific observations, or magnitude-distance attenuation relations. Additionally, the analysis would need to include an appropriate duration of earthquake, considering accelerograms for the anticipated event. Appropriate elastic response spectra should be selected using engineering methodology for selection, such as the Newmark-Hall Spectrum or other appropriate published spectra, USGS Probabilistic Maps, or site-specific response spectra.

(e) The Calculated Liquefaction Factor of Safety

All CCR surface impoundments, including any lateral expansions that exceed the size threshold and have been determined to contain soils susceptible to liquefaction must meet a liquefaction factor of safety equal to or greater than 1.20. A prudent engineering analysis of structural stability also includes a liquefaction potential analysis and analysis of post-liquefaction static factors of safety. As discussed previously, liquefaction is a phenomenon which typically occurs in loose, saturated or partially-saturated soils in which the effective stress of the soils reduces to zero, corresponding to a total loss of shear strength of the soil. The most common occurrence of liquefaction is in loose soils, typically sands. The liquefaction FOS determination in the final rule is used to determine if a CCR unit would remain stable if the soils of the embankment of the CCR unit were to experience liquefaction. Liquefaction analysis is only necessary in instances where CCR surface impoundments show, through representative soil sampling, construction documentation, or anecdotal evidence from personnel with knowledge of the CCR unit's construction, that soils of the embankment are susceptible to liquefaction.

EPA has included this requirement because the mechanics and response phenomena of geotechnical structures vary radically following induced liquefaction, *i.e.*, post-liquefaction.

Similar to the requirement for seismic factors of safety, liquefaction factors of safety are necessary because reliance on static loading is not sufficient to evaluate the structural stability of a CCR surface impoundment. Standard engineering methodology and guidance support EPA's conclusion that adequate liquefaction potential analyses and post-liquefaction residual strength slope stability analyses of embanked structures is essential to ensure the continued structural stability of a geotechnical structure following dynamic loading.

Under standard engineering methodologies, liquefaction potential analysis and post-liquefaction stability analysis includes several procedures to adequately analyze the structural strength of a CCR surface impoundment. Because only certain soils, such as loose sands, are susceptible to liquefaction, the rule requires only embankments constructed of such soils identified through liquefaction potential analysis to meet liquefaction factors of safety. Such liquefaction potential analysis would need to include proper soil characterization of the embankment soils for soil age and origin, fines content and plasticity index, water content, saturation, and maximum current, past, and anticipated future phreatic surface levels within the embankment, foundation, or abutments, location beneath the natural ground surface, and penetration resistance whether through standard penetration testing (SPT) or, ideally, cone penetration testing (CPT). Post-liquefaction stability analysis would need to include detailed characterization of the site conditions, identification of the minimum liquefaction-inducing forces based on soil characterization, determination of seismic effect on liquefied layers of the embankment, and calculation of factors of safety against each liquefied layer of the embankment.

(f) The Calculated Static Factor of Safety Under the End-of-Construction Loading Condition

The End-of-Construction loading condition must be calculated for new CCR surface impoundments to ensure that the CCR surface impoundment can withstand a "first-filling" of the embankment, during which time the embankment first become saturated and is subject to phreatic flow through the cross-section.

Embankments are typically constructed in layers with soils at or above their optimum moisture content that undergo internal consolidation because of the weight of the overlying

layers. Embankment layers may become saturated during construction as a result of consolidation of the layers or by rainfall. Because of the low permeability of fine-grained soils of which many embankments are constructed and the relatively short time for construction of the embankment, there can be little drainage of the water from the soil during construction: resulting in the development of significant pore pressures. Soils with above optimum moisture content will develop pore pressures more readily when compacted than soils with moisture contents below optimum. In general, the most severe construction loading condition is at the end of construction.

The final rule requires that the calculated static factor of safety for the critical cross section of the CCR surface impoundment under end of construction loading conditions meet or exceed 1.30. The End-of-Construction loading condition is analyzed for new construction under their initial filling condition, following the completion of construction. Undrained shear strength conditions are typically assumed for the End-of-Construction loading condition. Both the upstream and downstream slopes of the embankment are analyzed for this condition

(g) Failure To Demonstrate Minimum Safety Factors or Failure To Complete a Timely Safety Factor Assessment

As previously discussed, the rule requires an owner or operator to document that the calculated factors of safety for each CCR surface impoundment achieve the minimum safety factors specified in the rule. For any CCR surface impoundment that does not meet these requirements, the owner or operator must either take any engineering measure necessary to ensure that the unit meets the requirements by the rule's deadlines, or cease placement of CCR and non-CCR waste into the unit and initiate closure of such CCR unit as provided in section 257.102 within six months. Similarly, if an owner or operator fails to complete the initial safety factor assessment or any subsequent periodic factor safety assessment by the deadlines established in the rule, the owner or operator must cease placing CCR and non-CCR waste into the unit and initiate closure within six months.

(h) Vertical Expansions of CCR Surface Impoundments and Structural Integrity Criteria

It is not uncommon for the owner or operator to raise the crest of a CCR surface impoundment to accommodate the additional capacity needs of the

⁹⁹FEMA Doc. 65 "Earthquake Analyses and Design of Dams;" <http://www.ferc.gov/industries/hydropower/safety/guidelines/fema-65.pdf>.

facility. The record documents that CCR surface impoundments are commonly expanded from the original design or as-built construction, through such “vertical expansions,” including where a CCR surface impoundment changes from a “small” CCR unit (*i.e.*, below the height and/or volume threshold) to a “large” CCR unit (*i.e.*, exceeding the height and/or volume threshold). In these situations, the owner or operator of the CCR unit becomes subject to additional structural integrity requirements as a result of the vertical expansion. Realizing that these newly created CCR units will require some time to meet the structural integrity requirements, the Agency is allowing one year from the completion of the vertical expansion for the owner or operator to comply with the requirements of §§ 257.73 or 257.74, as applicable.

F. Operating Criteria—Air Criteria

EPA proposed to require CCR landfills, CCR surface impoundments and any lateral expansion to control the creation of fugitive dust. Specifically, EPA proposed that facilities must ensure that fugitive dust either not exceed the standard of 35 $\mu\text{g}/\text{m}^3$, established as the level of the 24-hour National Ambient Air Quality Standards (NAAQS) for fine particulate matter (PM_{2.5}), or any alternative standard established pursuant to applicable requirements developed under a State Implementation Plan (SIP) approved or promulgated by the Administrator pursuant to section 110 of the CAA (see 75 FR 55175). Consistent with the numerical standard, EPA proposed to require that CCR units be managed to control the wind dispersal of dust, and that CCR landfills also be required to emplace wet conditioned CCR (*i.e.*, wetting CCR with water to a moisture-content that prevents wind dispersal and facilitates compaction, but does not result in free liquids) into the unit. EPA also required that documentation of the measures taken to comply with the requirements be certified by an independent registered professional engineer. EPA proposed these requirements based on the results of a screening level analysis of the risks posed by fugitive dust from CCR landfills, which showed that without fugitive dust controls, levels at nearby locations could exceed 35 $\mu\text{g}/\text{m}^3$, established as the level of the 24-hour PM 2.5 NAAQS for fine particulate. These measures were also intended to reduce the excessive cancer risks associated with the inhalation of hexavalent chromium. This potential risk would apply to over six million

people who live within the census population data “zip code tabulation areas” for the 495 rule-affected electric utility plant locations. (See 75 FR 35215.)¹⁰⁰

As part of the proposal, EPA solicited comments on the following fugitive dust issues: (1) The location of air monitoring stations near CCR landfills or CCR surface impoundments; and (2) information on any techniques, such as wetting, compaction, or daily cover that are or can be employed to reduce exposures to fugitive dust. The Agency received no information from commenters on either of these issues.

The majority of comments received, however, took issue with the proposed technical standard of 35 $\mu\text{g}/\text{m}^3$. Commenters argued that, as proposed, the standard would be impossible to implement because the Agency provided no information on particle size, form of the standards, whether an averaging period is available, point of compliance or how one considers upwind sources. More generally, however, commenters argued that the proposed provisions were unnecessary because fugitive dust issues were adequately addressed by existing air rules through the development and implementation of NAAQS, such as PM₁₀ and PM_{2.5}. These same commenters acknowledged, however, that if the Agency established a criterion to control fugitive dusts, a more appropriate and reasonable standard could be based on best management practices or BMPs. To that end, commenters offered information suggesting that CCR landfills typically used compaction, regular wetting and temporary covers in conjunction with visual air monitoring to effectively control fugitive dust at their facilities, and that these practices were included in facility operating plans.

As discussed in the proposed rule, EPA’s decision to address fugitive dust was based on a peer review of the 2010 draft Risk Assessment, 2007 NODA stakeholder comments, photographic documentation of fugitive dust associated with the management of CCR, Agency actions to control fugitive emissions during the clean-up of the

¹⁰⁰ As evidenced in 42 U.S.C. 6971(f), Congress intended that the Occupational Safety and Health Administration (OSHA) be able to enforce its regulations to protect workers exposed to hazardous waste and that EPA and OSHA would work together to ensure that. EPA is clarifying that it intends that the CCR disposal rule not preempt applicable OSHA standards designed to protect workers exposed to CCRs; thus EPA’s final rule on CCR disposal will apply in addition to any applicable OSHA standards. The Agency has added specific regulatory language in this section to address this intent.

December 2008 TVA Kingston spill, and OSHA’s Material Safety Data Sheets (now *Safety Data Sheets* (SDS)) requirements for coal ash. These lines of evidence have been bolstered since the proposal, by evidence collected during the eight 2010 CCR public hearings, where stakeholders provided extensive feedback about fugitive dust impacts associated with CCR management at facilities adjacent to their residences, and by documented reports on fugitive dust issues provided by citizen groups.¹⁰¹ The stakeholders called for federal oversight to address those instances where complaints were seemingly ignored by state regulators and/or where state administrative enforcement measures failed to compel the utilities to effectively amend their dust emission control management practices. The Agency followed up on the complaints with state agencies and compiled a preliminary database on documented and alleged fugitive dust damage cases.¹⁰²

In support of this rule, EPA compiled records of over 20 documented fugitive dust cases, in addition to several alleged cases that could not be verified. The documented cases indicate that fugitive dust concerns arise in all phases of the CCR life cycle—from conveyor belt transfer at the coal-fired power plant, through stockpiling and transport for disposal/beneficial use, and up to final disposition. Fugitive dust also is a potential concern associated with both—landfills and surface impoundments. Whereas a nexus between fugitive dust impacts and CCR landfill operations was to be expected, EPA discovered that fugitive dust was also of concern at CCR surface impoundments, either under conditions of windy winter spells affecting CCR exposed above or next to the CCR surface impoundment boundary, or due to the total CCR surface impoundment evaporation in arid areas.

Very few studies have been undertaken to test the health impacts caused by fugitive dust emissions, and of those few, due to inherent limitations, all failed to prove that fugitive dust was the cause of the documented health concerns. For example, in the wake of the January

¹⁰¹ For instance, photographic evidence provided by Susan Holmes, the Bokoshe Environmental Cause Group (B.E. Cause), Bokoshe, Oklahoma. See Earthjustice’s brief background coverage at: <http://earthjustice.org/blog/2011-april/not-having-fun-in-bokoshe-ok>, and ABC News’ *Oklahoma Town Fears Cancer, Asthma May Be Linked to Dump Site*, March 29, 2011: <http://abcnews.go.com/US/oklahoma-town-fears-cancer-asthma-linked-dump-site/story?id=13240312>.

¹⁰² A compilation of damage cases can be found in the docket supporting this rule.

2005 coal ash pile collapse at the Rostosky Ridge Road, in Allegheny County, Pennsylvania, both the federal and county studies¹⁰³ failed to test during this period and missed the narrow exposure window that would have possibly demonstrated a link between the event and the short-term health symptoms (e.g., sore throat, cough, fever, nausea, fatigue, diarrhea, and headaches) contracted by residents who ultimately removed approximately 1,500 tons of fly ash from their properties immediately after the incident without the benefit of any protective respiratory gear. The federal and county studies also found no evidence of long-term arsenic poisoning of the tested individuals. For recurring instances of CCR dispersion in the air at the Indian River Power Plant, Millsboro, Delaware, three consecutive state studies tentatively established other risk factors as the probable cause for a lung cancer cluster in a down-wind location of the presumable source term (CCR fugitive dust blowing of a landfill and stack emissions).¹⁰⁴ Critics claim that these studies used too small of a sample, and were not designed to capture the impact of long-term exposure to pollution.¹⁰⁵

Nevertheless, in eleven other cases, states adopted measures to address concerns from fugitive dust emissions; these included conducting lung-cancer cluster and other health studies, conducting particle dispersion studies, issuing Notices of Violation and Consent Orders to the responsible facilities, waiving landfill cover exemptions, and requiring dust management plans for newly permitted CCR landfills. In addition, in several instances, citizens filed lawsuits or reached an out-of-court settlement with the primary responsible party; and in one case, OSHA imposed a steep fine on the owners of a facility manufacturing

abrasive blasting and roofing materials from slag produced at a nearby coal-fired power plant, for willfully exposing their workers to dangerously high levels of hazardous dust, and for failing to provide adequate breathing protection and training for workers at the facility. According to stakeholder allegations, fugitive dusts generated by these same materials also adversely impacted residents in the facility's immediate vicinity.

As previously stated, many commenters argued that the proposed numeric particulates standard was incompatible with the air quality requirements established under the States' Implementation Plans (SIPs) or with provisions set up by the states in their Title V Clean Air Permits to the power producers. In addition, the commenters argued that the proposed standard lacked technical details to facilitate effective implementation, and that implementation of the standard required specialized equipment and advanced training to carry out a judicious reading and interpretation of opacity, a proxy measure for the level of fugitive dust emissions. In light of these comments, EPA re-evaluated the existing CAA standards applicable to these units; 40 CFR 70.2 identifies fossil-fuel-fired steam electric plants of more than 250 million BTU/hour heat input as potential sources of fugitive dust (PM sources) that must be covered by state permitting, and 40 CFR 70.3 stipulates that fugitive emissions from a part 70 source shall be included in the permit application and the part 70 permit in the same manner as stack emissions, regardless of whether the source category is included in the list of sources contained in the definition of major source. Based on these applicable CAA requirements, the Agency agrees that the adoption of a PM standard under the final rule would entail a potential for duplication or inconsistency with applicable state-established standards in SIP permits.

EPA also acknowledges the challenges involved in measuring the proposed compliance standard. Because fugitive dust is emitted from non-point sources, it cannot be easily measured by conventional methods. Usually, regulations developed by the states to control fugitive dust stipulate that no person or source shall cause or allow, from any activity, any emissions of fugitive particulate matter that are visible to an observer who looks horizontally along the source's property line. A quantitative measurement of fugitive dust levels (EPA's Reference Method 9) would require measuring opacity, which, as the commenters

noted, necessitates specialized technical training, trainee certification, and judicious application of instrumentation.

Therefore, rather than requiring a potentially redundant and challenging-to-implement quantitative standard, EPA is substituting a performance standard for fugitive dust control. This standard requires owners or operators of a CCR unit to adopt measures that will effectively minimize CCR from becoming airborne at the facility, including CCR fugitive dust originating from CCR units, CCR piles, roads, and other CCR management activities. The Agency considers this standard to be consistent with the intent of the proposed rule, with the added advantage of allowing facilities the flexibility to determine the appropriate measures to achieve regulatory compliance at their individual site. This standard and the accompanying regulatory requirements supporting its implementation, will achieve the statutory obligation of "*no reasonable probability of adverse effects on human health and the environment.*"

As in the proposal, the Agency is also requiring documentation of the measures taken to comply with the technical standard in a "CCR fugitive dust control plan" (herein referred to as "plan"). Consistent with the proposal, the plan must be certified by a qualified professional engineer and placed in the operating record and on the owner or operators publicly accessible internet site. The plan requires owners or operators to elaborate on the types of activities applicable and appropriate for the conditions at the facility that will be employed to minimize CCR from becoming airborne at the facility. Examples of control measures that may be appropriate include: Locating CCR inside an enclosure or partial enclosure; operating a water spray or fogging system; reducing fall distances at material drop points; using wind barriers, compaction, or vegetative covers; establishing and enforcing reduced vehicle speed limits; paving and sweeping roads; covering trucks transporting CCR; reducing or halting operations during high wind events; or applying a daily cover.

The initial plan must be completed by the effective date of the rule (i.e., within six months of publication). Because this is an initial plan, and because it must be completed within a short timeframe, EPA acknowledges that the facility may only be able to present its initial judgment of the measures that it anticipates are likely to be effective based on the information that is readily available within this six month

¹⁰³ (i) *Coal Fly Ash Landslide, Forward Township, Allegheny County, Pennsylvania*, ASTDR Health Consultation June 1, 2006: <http://www.atsdr.cdc.gov/HAC/pha/CoalFlyAshLandslide/CoalFlyAshLandslideHC060106.pdf> (ii) *Results of the Health Investigation Following Fly Ash Contamination in Forward Township, Allegheny County, Pennsylvania*, Allegheny County Health Department, July 2005: <http://www.achd.net/air/pubs/pdf/Forward%20Fly%20Ash%20Study%202005.pdf>.

¹⁰⁴ *Millsboro Inhalation Exposure and Biomonitoring Study*. State of Delaware Department of Natural Resources and Environmental Control, Department of Health and Social Services, Dover (RTI Project 0213061), DE, May 2013: http://www.dnrec.delaware.gov/Admin/Documents/Millsboro_Inhalation_Exposure_and_Biomonitoring_Study_Final_Report_05282013.pdf.

¹⁰⁵ *Critic chides cancer study: Indian River plant results called lame*. Delawareonline, May 28, 2013: <http://www.delawareonline.com/article/20130528/NEWS/305280081/>.

timeframe. EPA anticipates that owners or operators may need to revise the plan as they gain additional information and experience implementing the regulations. In recognition of this, the final rule also requires that the CCR fugitive dust control plan include a description of the procedures the owner or operator will follow to periodically assess the effectiveness of the control plan. Consistent with other plans required in this rule, the owner or operator may amend the written CCR fugitive dust control plan at any time. However, the owner or operator must amend the written plan whenever there is a change in conditions that would substantially affect the written plan in effect, such as the construction and operation of a new CCR unit. The plan and any subsequent amendments must be certified by a qualified professional engineer.

In addition, the Agency is promulgating with a slight modification the requirement for owners and operators of all CCR landfills and any lateral expansion to emplace CCR as conditioned CCR, as well as the definition of conditioned CCR. *Conditioned CCR* has been defined to mean CCR wetted with water to a moisture content that will prevent wind dispersal, but will not result in free liquids, consistent with the definition in the proposed rule. In response to several commenters' requests, and upon further evaluation the Agency is allowing that in lieu of water, CCR conditioning may be accomplished with an appropriate chemical dust suppression agent.¹⁰⁶ As with other requirements of this rule, in order to ensure that the provisions of the fugitive dust criteria are maintained throughout the operating life of the CCR unit, the Agency is requiring that the owner or operator prepare an annual CCR fugitive dust control report, describing the actions taken to control CCR fugitive dust, a record of all citizen complaints, and a summary of any corrective measures taken. The first annual report must be completed no later than 14 months after placing the initial CCR fugitive dust control plan in the facility's operating record. The owner or operator has completed the annual CCR fugitive dust control report

¹⁰⁶ Spray-on adhesives, surfactants, aqueous foamers, humectants (calcium, magnesium, ad sodium chloride and their mixtures), and polymer solutions and emulsions. See, for instance "The Role of Chemicals in Controlling Coal Dust Emissions" Benetech, Inc. available at <http://pdf.ebooks6.com/download.php?id=139860> or Peterson, Edwin. "An Aid to Fugitive Materials Control in Coal Ash Applications" presented at the World of Coal Ash (WOCA) conference—May 9–12, 2011 in Denver, Colorado.

when the plan has been placed in the facility's operating record.

The general public, as well as the Agency, is highly concerned with potential risks associated with CCR fugitive dusts. This was readily apparent during the public hearings and from the many comments received on this issue. The Agency continues to receive information regarding this human health and environmental concern. While the subtitle D provisions of this rule lack permitting oversight mechanisms to control fugitive dust from CCR units, it is clear to the Agency that additional substantive actions were needed to facilitate citizen suit enforcement of this criteria. Consequently, the Agency are adding a specific requirement to the CCR fugitive dust control plan to require owners and operators of all CCR units to develop and implement formal procedures to log citizen complaints involving CCR fugitive dust events. These complaints must, then, be included as part of the annual CCR fugitive dust control report. This report must be placed in the operating record and on the owner or operator's publicly accessible internet site. Promulgation of these measures will subject the owner or operator of the CCR disposal facility to public and state scrutiny, and create an incentive for the owner or operator of the CCR disposal facility to improve compliance with the fugitive dust control requirements.

G. Operating Criteria—Run-On and Run-Off Controls for CCR Landfills

EPA's proposal required owners or operators of CCR landfills and all lateral expansions to design, construct and maintain a run-on control system to prevent flow onto the active portion of these units during the peak discharge from a 24-hour, 25-year storm. As described in the proposed rule, run-on controls are designed to prevent erosion, which may damage the physical structure of the landfill, prevent the surface discharge of CCR in solution or suspension; and to minimize the downward percolation of run-on through wastes, creating leachate. Similarly, EPA proposed run-off controls in order to collect and control, at a minimum, the water volume resulting from a 24-hour, 25-year storm. This standard was proposed in order to protect surface waters from contamination. Under the existing 40 CFR part 257 requirements, to which CCR units are currently subject, run-off must not cause a discharge of pollutants into waters of the United States that is in violation of the National Pollutant Discharge Elimination System (NPDES) under section 402 of the Clean Water

Act. EPA did not propose to revise the existing requirement, but merely incorporated it for ease of the regulated community.

The Agency proposed the 24-hour period because it was a timeframe that included storms of high intensity with short duration and storms of low intensity with long duration. EPA believed that this was a widely used standard that had been incorporated into the hazardous waste landfills and MSW landfills regulatory requirements. At the time, EPA had no information that warranted a more restrictive standard for CCR landfills. EPA received no significant comment on the proposed requirements, and for the most part, is adopting the proposed requirements without revision. However, in an effort to clarify and provide more direction to the owner or operator and the certifying qualified professional engineer, the Agency has added additional regulatory language that more specifically describes the technical criteria established under this section of the rule.

The run-on and run-off controls of the final rule require that the owner or operator prepare the initial run-on and run-off control system plan within 18 months of publication of the rule. Run-on and run-off control system plan reporting may require design, construction, and post-construction implementation. In instances where run-on and run-off capacity is insufficient, installing additional capacity may involve construction of diversion structures such as swales or ditches. Many of these efforts may require several months of design and construction, compounded by the fact that much of the work cannot be completed in cold-weather or heavy-rain seasons.

1. Run-On and Run-Off Controls for CCR Landfills and All Lateral Expansions¹⁰⁷

All CCR landfills and all lateral expansions must be designed, constructed, operated, and maintained with a run-on control system to prevent flow onto the active portion of the CCR unit from the peak discharge from a 24-hour, 25-year storm and a run-off control system to collect and control at

¹⁰⁷ In the proposed rule under the RCRA subtitle D option, EPA jointly proposed run-on and run-off requirements for CCR landfills and CCR surface impoundments under proposed § 257.81. In this final rule, EPA has modified the "run-on and run-off" requirements and is providing separate requirements for CCR landfills and CCR surface impoundments. CCR surface impoundments are now subject to the hydrologic and hydraulic capacity requirements at § 257.82. This new section of the rule more appropriately addresses flow management issues at CCR surface impoundments.

least the volume of water resulting from a 24-hour, 25-year storm from the active portion of the CCR unit.¹⁰⁸

Consistent with the proposal, the rule requires the owner or operator of a CCR landfill or lateral expansion to prepare an initial run-on and run-off control system plan for the CCR unit. For existing CCR landfills, the plan must be prepared by the owner or operator no later than one year from the effective date of the rule. For new CCR landfills and any lateral expansion of a CCR landfill, the plan must be prepared no later than the date of initial placement of CCR in the landfill or lateral expansion. The plan must document how the run-on and run-off control systems have been designed and constructed to meet the requirements of rule and must be supported by appropriate engineering calculations. The run-on and run-off control system plan must be certified by a qualified professional engineer and is considered prepared when the owner or operator has placed the plan in the facility's operating record.

The rule also provides for the owner or operator to amend the plan at any time (e.g., prior to receipt of CCR in the CCR unit, during the operating life of the CCR unit, during closure of the CCR unit, or following closure of the CCR unit) provided the revised plan is placed in the facility's operating record. The owner or operator must, however revise the plan whenever there is a change in the conditions that would substantially affect the written plan in effect (e.g., closure of an existing portion or cell of the CCR landfill, resulting in a possible change in the size of the "active portion" of the CCR landfill).

In addition, consistent with other provisions in this rule, the Agency is requiring that the run-on and run-off control system plan be reviewed, and where necessary, revised or updated at least every five years. The Agency is specifying this periodic review in order to address factors having the potential to influence the run-on and run-off control system. Among other things, CCR landfills can be subject to build-out, operational changes, and surface cover changes, all of which have the potential to significantly alter run-on and run-off flows to and from the active portion of the CCR landfill. Changes in storm

intensity and duration, as well as upstream catchment area characteristics, can alter flows that may significantly affect a previously adequate run-on and run-off control system. A mandated five year review of a control system plan is consistent with accepted good engineering practices and protocols for proper maintenance of operational systems supporting the overall performance of a CCR landfill. It is also consistent with the proposed requirement that an owner or operator "maintain" the run-on and run-off control system. EPA interprets this to require the owner or operator to ensure that the run-on and run-off control system is kept in a condition that meets the requirements of the rule, i.e., that the run-on and run-off control system both prevents flow onto the active portion of the unit during the peak discharge from a 24-hour, 25-year storm and collects and controls at least the water volume resulting from a 24-hour, 25-year storm event for the duration of the CCR landfill's operational life. A requirement to conduct a review of the control plan at least once every five years merely provides an explicit mechanism to ensure this occurs in a manner that facilitates citizen and state oversight.

The date of preparing the initial plan is the basis for establishing the deadline to complete the first subsequent plan; i.e., the subsequent plan must be completed within five years of the prior plan. The owner or operator may complete any required plan prior to the required deadline and must place the completed plan into the facility's operating record within the five year timeframe. A qualified professional engineer must certify that the run-on and run-off control system plan, including any subsequent amendments, meets the run-on and run-off control system requirements of this final rule.

a. Run-On Control

Consistent with the proposal, EPA is defining *run-on* to mean any liquid that drains over land onto any part of a CCR landfill or any lateral expansion of a CCR landfill. In surface water hydrology, run-on is a quantity of surface run-off, or excess rain, snowmelt, or other sources of water, which flows from an upstream catchment area onto a specific downstream location. This rule requires that the CCR landfill be designed, constructed, operated, and maintained to prevent flow onto the active portion of the CCR landfill during the peak discharge from a 24-hour, 25-year storm. EPA has adopted this requirement to minimize the amount of surface water

entering the CCR landfill and to minimize disruption of the CCR landfills operation due to storm water inflow. Uncontrolled or undesirable storm water run-on may have significant impacts on the stability of the slopes of a CCR landfill and continued safe operation of the CCR landfill, due to such phenomena as erosion and infiltration.

b. Run-Off Control

EPA has adopted the definition of run-off from the proposal without revision. *Run-off* means any liquid that drains over land from any part of the CCR landfill. Effectively, run-off is the portion of rainwater, snowmelt, or other liquid which does not undergo abstraction, such as infiltration, and travels overland. Typically, run-off is the product of the inability of water to infiltrate into soil due to saturation or infiltration rate capacity being exceeded. The rule requires that the CCR landfill be designed, constructed, operated, and maintained to collect and control at least the water volume resulting from a 24-hour, 25-year storm. The owner or operator must design, construct, operate, and maintain the CCR landfill in such a way that any run-off generated from at least a 24-hour, 25-year storm must be collected through hydraulic structures, such as drainage ditches, toe drains, swales, or other means, and controlled so as to not adversely affect the condition of the CCR landfill. EPA has promulgated these requirements to minimize the detention time of run-off on the CCR landfill and minimize infiltration into the CCR landfill, to dissipate storm water run-off velocity, and to minimize erosion of CCR landfill slopes. An additional concern with run-off from CCR landfills is the water quality of the run-off, which may collect suspended solids from the landfill slopes. EPA acknowledges that the run-off requirements will also minimize the amount of run-off related pollution generated by the landfill run-off.

c. Run-On and Run-Off Control System Plan

The owner or operator of any CCR landfill must prepare an initial run-on and run-off control system plan documenting, with supporting engineering calculations, how the control systems have been designed and constructed to meet the requirements of the rule. This has been adopted without revision from the proposal. In most cases, EPA expects this documentation will include in addition to the supporting engineering calculations, references and drawings regarding the

¹⁰⁸ Under existing part 257 requirements, to which CCR units are currently subject, runoff must not cause a discharge of pollutants into waters of the United States that is in violation of the National Pollutant Discharge Elimination System (NPDES) under section 402 of the Clean Water Act (40 CFR 257.3-3). EPA did not propose to revise this requirement but is merely incorporating it here for ease of the regulated community.

identification of the 24-hour, 25-year storm for the location of the CCR landfill, a characterization of the rainfall abstractions, including but not limited to depression storage and infiltration, the selection and basis of an appropriate run-off model, the selection and basis of an appropriate run-on or run-off routing model, and the selection and design of an appropriate run-on and run-off management system (e.g., swales, ditches, retention or detention ponds). Consideration of the above factors would generally constitute a comprehensive review of the hydraulic and hydrologic processes associated with the design of a run-on and run-off control system plan. EPA recognizes that over time, any number of factors, e.g., expansion of the facility, could affect a change in the run-on and run-off control system plan. Consequently in the final rule EPA is providing for flexibility in this area by stating that the plan can be amended by the owner or operator at any time during the life of the CCR landfill, provided the amendments are placed in the operating record and on the facility's publicly accessible Internet site.

H. Operating Criteria—Hydrologic and Hydraulic Capacity Requirements for CCR Surface Impoundments

As discussed in the previous section, EPA proposed to require owners or operators of CCR landfills to design, construct, operate, and maintain: (1) A run-on control system to prevent flow onto the active portion of the unit during the peak discharge from a 24-hour, 25-year storm; and (2) a run-off control system to collect and control, at a minimum, the water volume resulting from the same 24-hour, 25-year storm. EPA also proposed to apply these same run-on and run-off requirements to all CCR surface impoundments and lateral expansions.

Commenters overwhelmingly disagreed with EPA's decision to apply the same run-on and run-off requirements to both CCR landfills and CCR surface impoundments, arguing that a "control system to prevent flow onto the active portion of the surface impoundment" was at odds with a commonly employed practice of using CCR surface impoundments to manage incoming storm water and other inflow. While some commenters reasoned that preventing run-on may be appropriate for CCR landfills and CCR surface impoundments surrounded by above-ground dikes, the proposed requirement was entirely inappropriate for units specifically designed to retain storm water from an adjoining watershed or to operate as part of a facility's overall

storm water management system. Numerous commenters suggested that instead of the run-on prevention provision for CCR surface impoundments, EPA adopt a requirement specifying that CCR surface impoundments be designed to accommodate "peak discharge events." Other commenters argued that storm water run-on controls were only appropriate during and after the closure of CCR surface impoundments; while still other commenters suggested that EPA remove entirely the run-on and run-off requirements because CCR surface impoundments were typically designed to impound and discharge storm water flow far in excess of a 25-year/24-hour storm event.

In evaluating the arguments against the requirements to prevent flow onto the CCR surface impoundment, the Agency was strongly influenced by guidance developed by FEMA for selecting and accommodating hydraulic and hydrologic inflow and outflow as well as the application of this guidance to the CCR surface impoundments evaluated as part of EPA's Assessment Program.¹⁰⁹ A review of FEMA guidance confirmed commenters' contentions that managing flow both to and from dams and impoundments was a widely used practice, and a preferable management strategy for accommodating storm water flows. This was further confirmed by observations made during EPA's Assessment Program; EPA frequently observed units designed to detain or retain storm water inflows of an upstream catchment area to manage CCR, and/or to receive storm water inflow as part of the facility's overall storm water management system. Moreover, EPA relied on the same FEMA guidance to assess the adequacy of the hydrologic and hydraulic capacity of the CCR surface impoundments. In conducting these assessments, EPA considered a number of factors including operating freeboard, catchment area, hydrologic structures' inflow and outflow ratings, design precipitation event, spillway presence and capacity, and unit operating procedures to make this determination. The adequacy of the capacity was determined using FEMA guidance for selecting and accommodating inflow design floods (IDF) for dams. (Note: The use of the terminology related to "inflow design flood" for CCR surface impoundments rather than "run-on"

and "run-off" is more directly applicable to the hydraulic and hydrologic capacity of CCR surface impoundments to adequately manage both the inflow and outflow from a design flood.)

During its assessment effort, EPA also found that, contrary to commenter's arguments CCR surface impoundments were often not designed to address floods in excess of a 24-hour, 25-year storm event. Rather many CCR surface impoundments were deficient in their hydrologic and hydraulic capacity requirements due to factors such as lack of operating freeboard, misunderstanding of the actual contributory area, lack of documentation, undersized decant structures, undersized spillways, and lack of spillways.

EPA also disagrees with the comment asserting that storm water controls are only appropriate during and after closure of CCR surface impoundments. Hydrologic and hydraulic capacity, as determined by an effective design flood control system, is an essential element of the overall structural integrity and safety of a CCR surface impoundment. CCR surface impoundments are subject to any number of stresses throughout their operational life; one of the most common causes of a dike or embankment failure being the inability of the CCR unit to adequately pass or manage flood flows resultant from direct or indirect precipitation. These failures can occur at any point in the CCR unit's life, not solely during and after closure, and are usually due to inadequate hydrologic and hydraulic capacity, leading to internal erosion due to seepage and piping, erosion of spillways, overtopping erosion, and overstressing of the embankment. Furthermore, according to the U.S. Bureau of Reclamation, a common dam failure mode is due to overtopping, accounting for 30% of the failures in the U.S. over the last 75 years.¹¹⁰ Overtopping is the direct result of lack of adequate hydrologic and hydraulic capacity of a dam or surface impoundment. Therefore, EPA is not modifying the regulation as suggested by the commenter.

In light of comments received, observations made during EPA's Assessment Program, and guidance developed by FEMA, EPA has concluded that it was inappropriate to propose to prohibit all run-on discharge or inflow from storm water to CCR surface impoundments. EPA has also

¹⁰⁹ EPA referred to FEMA's "Federal Guidelines for Dam Safety: Selecting and Accommodating Inflow Design Floods for Dams" in evaluating the adequacy of the CCR surface impoundment's hydrologic and hydraulic capacity during its assessment effort.

¹¹⁰ <http://www.usbr.gov/ssle/damsafety/Risk/BestPractices/16-FloodOvertoppingPP20121126.pdf>.

concluded that run-on and run-off criteria are inappropriate for CCR surface impoundments, and that a more appropriate standard involves determining the hydrologic and hydraulic capacity of a unit, measured by its inflow design flood or IDF. Therefore, EPA is amending the proposed run-on and run-off requirements for CCR surface impoundments to require owners or operators of all CCR surface impoundments to design, construct, operate, and maintain hydraulic and hydrologic capacity to adequately manage flow both into and from a CCR surface impoundment during and after the peak discharge resulting from the inflow design flood, based on the Hazard Potential Classification of the CCR surface impoundment.

The final rule requires the preparation of the initial inflow design flood control system plan within 18 months of publication of the final rule. In many cases, inflow design flood control system plan reporting may require design, construction, and post-construction implementation in order to provide sufficient hydrologic and hydraulic (H/H) capacity for the CCR unit. In instances where H/H capacity is insufficient, installing additional capacity may involve spillway construction or decant structure construction or installation. Many of these efforts may require several months of design and construction, compounded by the fact that much of the work cannot be completed in cold-weather or heavy-rain seasons.

1. Inflow Design Flood Controls for CCR Surface Impoundments and All Expansions

The Agency has concluded that the proposed requirement preventing run-on to a CCR surface impoundment was both impractical and unwarranted and could possibly disrupt effective storm water management systems operating at CCR facilities. Therefore, consistent with FEMA guidance, the Agency is modifying this requirement to require an owner or operator of an existing or new CCR surface impoundment or any lateral expansion to design, construct, operate, and maintain H/H capacity of CCR surface impoundments to: (1) Adequately manage flow into the CCR surface impoundment during and following the peak discharge of the inflow design flood; and (2) adequately manage flow from the CCR unit to collect and control the peak discharge resulting from the inflow design flood. The inflow design flood is based on the hazard potential classification of the unit as required by § 257.73 and

§ 257.74 of this rule.¹¹¹ The inflow design floods for specific hazard potential classifications are as follows: (1) The probable maximum flood (PMF) for high hazard potential CCR surface impoundments; (2) the 1000-year flood for significant hazard potential CCR surface impoundments; (3) the 100-year flood for low hazard potential CCR surface impoundments; and (4) the 25-year flood for incised CCR surface impoundments.¹¹²

EPA has based this revised requirement on the FEMA's guidance entitled, "Selecting and Accommodating Inflow Design Floods for Dams," which represents current and accepted practices in dam engineering and provides a consistent and uniform standard that has been adopted throughout dam engineering.

Incised CCR surface impoundments, as defined in this rule, are also required to meet inflow design flood requirements.¹¹³ While incised units do not pose the same potential for release as a diked unit, *i.e.*, breach of dike and release of CCR, overtopping of an incised unit does represent a potential environmental hazard warranting control. EPA acknowledges, however, that overtopping of an incised unit would result in a release of CCR material through a surcharge flow, *i.e.*, flow of a temporary stage overtopping the "crest" of the incised CCR surface impoundment, and would not precipitate the degradation of a dike and potential subsequent breach of a dike and massive release of contents of the CCR surface impoundment. To reflect the lower risks associated with such releases, and because incised CCR surface impoundments are not required to determine their hazard potential classification, the Agency is requiring that incised CCR surface impoundments only must accommodate a 25-year flood for the hydrologic and hydraulic capacity requirements of the rule. EPA chose the 25-year flood for incised CCR surface impoundments to maintain consistency with the proposed rule, which required that all units accommodate a 25-year storm event. As part of these requirements, EPA is also finalizing a definition of *inflow design flood* and *flood hydrograph*. *Inflow*

design flood has been defined to mean the flood hydrograph that is used to design or modify the CCR surface impoundment and its appurtenant works, and *flood hydrograph* has been defined to mean the temporal distribution of inflow into a CCR surface impoundment.

2. Inflow Design Flood Control Systems

Controlling the inflow and outflow of the CCR surface impoundment reduces the risks of hydrologic failure, which include overtopping erosion, internal excessive seepage and piping, erosion of spillways, and overstressing of the structural components of the CCR surface impoundment. The CCR surface impoundment's H/H capacity is to be designed based on the unit's hazard potential classification as determined by a qualified professional engineer. To meet the performance standard in the rule, the CCR surface impoundment must be designed to have adequate H/H capacity to ensure that rainfall and watershed characteristics have been accounted for, the hydraulic ratings of all intake structures are adequate and free of obstruction, operating freeboard is adequate, all spillways and decant structures have adequate capacity, and all downstream hydraulic structures have adequate capacity. While not required, an antecedent flood study may be necessary to characterize the condition of the CCR surface impoundment under normal operating conditions.

EPA recognizes that in many impoundment configurations, an inflow design flood may be limited to the direct precipitation that falls within the perimeter of the CCR surface impoundment during a storm event, due to the lack of storm water inflow routing from adjacent catchment areas. Other CCR surface impoundments may have storm water or other hydrologic contributions from various catchment areas or other sources. The final rule's hydraulic and hydrologic capacity standards require all CCR surface impoundments to have adequate hydraulic and hydrologic capacity to accommodate all contributory inflow to CCR surface impoundments, regardless of the inflow's origin.

The hydraulic and hydrologic capacity requirements will minimize the potential for overtopping to occur from normal or abnormal operations, overflowing, wind and wave action, rainfall, and run-on, and will ensure that the unit is operated with appropriate consideration of these potentially adverse conditions. The Agency notes, however, that the operating freeboard of a CCR surface

¹¹¹ *Federal Guidelines for Dam Safety: Selecting and Accommodating Inflow Design Floods for Dams*. August 1, 2013. FEMA P-94.

¹¹² All discharge from the CCR surface impoundment must be handled in accordance with the surface water requirements under § 257.3-3.

¹¹³ *Incised CCR surface impoundment* means a CCR surface impoundment which is constructed by excavating entirely below the natural ground surface, holds an accumulation of CCR entirely below the adjacent natural ground surface, and does not consist of any constructed diked portion.

impoundment is subject to fluctuations, deviating from original design assumptions and specifications. Additionally, EPA notes that routine maintenance and alterations of hydraulic structures associated with the CCR surface impoundments, *e.g.*, decant structures and spillways, can adversely impact the hydrologic and hydraulic capacity of the CCR surface impoundment. At no point should the inflow design flood exceed the capacity of the CCR surface impoundment, regardless of fluctuations in freeboard, maintenance of hydraulic structures, or other potential obstructions to the hydraulic and hydrologic capacity of the unit. The owner or operator must account for operational changes or diminished capacity in the calculation of hydraulic and hydrologic capacity of the CCR unit.

3. Inflow Design Flood Control System Plan

The owner or operator of an existing CCR surface impoundment must prepare an initial inflow design flood control system plan to document that the design and construction of the system will achieve the rule's performance standards no later than 18 months after the publication of this rule in the **Federal Register**. New CCR surface impoundments or lateral expansions of CCR surface impoundments must prepare an initial inflow design flood control system plan no later than the date of initial receipt of CCR in the unit. The owner or operator must obtain a certification from a qualified professional engineer that the plan meets all applicable requirements of the rule for inflow design flood control system plans. The plan must also be supported by appropriate engineering calculations. This documentation should also include references, and drawings regarding the identification of the design storm for the catchment area affecting the CCR surface impoundment and the CCR surface impoundment itself, a characterization of the rainfall abstractions, including but not limited to depression storage and infiltration in the upstream catchment area affecting the CCR surface impoundment. In addition, EPA expects supporting documentation to address the selection and basis of an appropriate run-off model and an appropriate run-on or run-off routing model; the identification and characterization of any intake or decant structures of the CCR surface impoundment; an appropriate characterization of the spillway(s) of the CCR surface impoundment and their capacity; and characterization of

downstream hydraulic structures which ultimately receive the discharge from the CCR surface impoundment. Finally, the owner or operator must comply with the recordkeeping, notification and internet requirements specified in the rule for the plan.

The owner or operator may amend the written inflow design flood control system plan at any time prior to receipt of CCR in the CCR unit, during the operating life of the CCR unit, during closure of the CCR unit, or following closure of the CCR unit provided the revised plan is placed in the facility's operating record. The owner or operator must amend the written inflow design flood control system plan whenever there is a change in the conditions that would substantially affect the written plan in effect. The owner or operator of the CCR surface impoundment must also periodically update the inflow design flood control system plan. The owner or operator must review or update an existing plan at a frequency no less than every five years. Changes in storm characteristics (*e.g.*, intensity and duration) and upstream catchment area characteristics, hazard potential classifications, as well as build-out, operational changes, and diminishing available capacity, all have the potential to influence inflow design flood volumes and therefore the effectiveness of the existing inflow design flood control systems. A periodic review of the plan to address these and other factors is necessary to ensure that the hydrologic and hydraulic capacity of the unit is maintained over time. An update of the inflow design flood control system plan should document any modifications pertinent to the inflow design flood control system.

The owner or operator may amend the written inflow design flood control system plan at any time and must place the revised plan in the facility's operating record. However, the owner or operator must amend the written inflow design flood control system plan whenever there is a change in the conditions that would substantially affect the written plan in effect. The owner or operator of the CCR unit must also review and, where necessary, update an inflow design flood control system plan every five years. As part of this review, the owner or operator must obtain certification from a qualified professional engineer must certify that the inflow design flood control system plan, and any subsequent amendments continues to meet the requirements of the rule. The date of completion of the initial plan is the basis for establishing the deadline to complete the first subsequent plan. The owner or operator

may complete any required plan prior to the required deadline, and must place the completed plan into the facility's operating record within a reasonable amount of time.

I. Operating Criteria—Inspection Requirements for CCR Surface Impoundments

EPA proposed structural stability requirements for CCR surface impoundments based on the long-standing MSHA requirements, with only minor modifications. These structural stability requirements were covered in various sections of the proposed rule (see specifically proposed §§ 257.71, 257.72, 257.83, and 257.84). Section 257.83 addressed requirements for periodic inspections of CCR surface impoundments. In proposing these requirements, the Agency concluded that periodic inspections were critical to ensure that any problems relating to structural stability are quickly identified and remedied to prevent catastrophic releases, such as occurred at Martins Creek, Pennsylvania and TVA's Kingston, Tennessee facility. The proposed rule required owners or operators to conduct: (1) Weekly inspections to detect potentially hazardous conditions or structural weakness; and (2) annual inspections to assure that the design, operation, and maintenance of the surface impoundment was in accordance with generally accepted engineering standards. EPA proposed that weekly inspections be conducted by a person qualified to recognize specific signs of structural instability and other hazardous conditions by visual observation and, if applicable, to monitor instrumentation. The proposed rule also required annual inspection reports from an independent registered professional engineer, certifying that the design, operation, and maintenance of the CCR surface impoundment was in accordance with generally accepted engineering standards. Consistent with the annual inspection requirements, EPA, as part of its recordkeeping requirements also proposed that owners or operators of CCR surface impoundments annually document and report on, among other things: (1) Changes in the geometry of the impounding structure; (2) location and type of instrumentation monitoring the unit; (3) the minimum, maximum and present depth and elevation of the impounded water, sediment or slurry for the reporting period; and (4) storage capacity of the impounding structure (see 75 FR at 35246).

The annual inspection provisions also required that if a potentially hazardous

condition developed, the owner or operator must immediately take several actions: Eliminate the potentially hazardous condition; notify potentially affected persons and state and local first responders; notify and prepare to evacuate, if necessary, all personnel from the property who may be affected by the potentially hazardous condition(s); and direct a qualified person to monitor all instruments and examine the structure at least once every eight hours, or more often as required by an authorized representative of the state. Finally, the proposed rule required that inspection and monitoring reports be maintained in the facility operating record and placed on the facility's publicly accessible Internet site as well as promptly reporting the results of the inspection or monitoring to the state.

EPA specifically requested comment on whether to cover all CCR impoundments for stability (including the inspection requirements), regardless of height and storage volume, whether to use the cut-offs in the MSHA regulations, or whether other regulations, approaches, or size cut-offs should be used. The Agency further requested commenters who believed that other regulations or size cut-offs should be used (and not the size cut-offs established in the MSHA regulations) to provide the basis and technical support for their position. (75 FR 35176, 35223). In response to EPA's general solicitation for alternative size cut-offs, the Agency received little response. However, many commenters questioned EPA's decision to require inspections for all CCR surface impoundments, given that the other structural stability requirements were triggered only if the CCR unit exceeded the proposed size threshold (consistent with MSHA requirements). Commenters argued that there was no basis to require inspections of all CCR surface impoundments given that units below the specified size threshold had a much lower risk of catastrophic failure. A more limited requirement the commenter's argued, was supported by MSHA's decision to regulate only those "larger" sized units. Other commenters argued that inspection timeframes should take into account site specific conditions at the site and be based on the recommendations of an independent registered professional engineer. Commenters reasoned that while, in theory, a short inspection interval (*i.e.*, a weekly inspection) should increase the chances of finding an adverse condition, the judgment of a qualified professional engineer to establish the frequency and focus, as well as the

purpose of the dam safety inspection was a far more effective method for detecting and preventing the development of a potentially adverse situation. Still other commenters questioned the overall value of a weekly inspection if, as proposed, no documentation of the results was required.

In reviewing the proposed regulatory language, it appears an error was made. Although the preamble generally stated that the proposed regulatory requirements addressing stability (which included inspections) applied only to those CCR surface impoundments exceeding the specified size threshold established by the MSHA regulations, the regulatory text required inspections for all CCR units. The final rule requires weekly general inspections and monthly instrumentation inspections to be conducted for all CCR surface impoundments. Periodic inspections of all CCR units are a necessary practice to ensure that the overall structural integrity of the CCR unit is maintained and that actual and potential structural weaknesses and other hazardous conditions are quickly identified and remediated throughout the active life of the unit. All CCR surface impoundments pose some risk of release—whether from a catastrophic failure or from a more limited structural failure, such as occurred at Duke Energy's Dan River plant. Periodic inspections are a generally accepted, prudent engineering practice that will significantly reduce the risks of such failures; during the Assessment Program, EPA discovered that many facilities routinely conduct some sort of periodic inspection and monitoring, although the frequency varied widely between facilities. The final rule merely codifies this practice, by establishing a consistent minimum timeframe. EPA is therefore requiring that all CCR surface impoundments be inspected by a qualified person both weekly (for visual signs of a potentially adverse condition) and monthly (for instrumentation monitoring). Consistent with the proposed rule, EPA is also requiring annual inspections for all CCR surface impoundments that exceed the specified size threshold of: (1) A height of five feet and a storage capacity of 20 acre-feet; or (2) a height of 20 feet, must also be inspected no less than annually by a qualified professional engineer. These inspection requirements are generally being promulgated as proposed, with minor technical clarifications.

The final inspection requirements have been drawn heavily from guidelines established by FEMA for dam safety, under which maintaining

structural integrity involves continuous evaluation of the unit, based on periodic inspections. To be most effective, FEMA suggests, and EPA concurs, that inspections be varied with respect to both the time interval between inspections and the level of detail of the inspection. FEMA guidance, in part, suggests that inspections can be categorized as either: Visual observations to identify abnormal conditions (*i.e.*, informal inspections); field inspections by a professional engineer (*i.e.*, intermediate inspections); and a technical review to determine if the unit meets current and accepted design criteria and practices (*i.e.*, formal inspection).¹¹⁴ In general, FEMA recommends that inspections focusing on visual observations should be conducted often (*e.g.*, weekly) while more substantive technical evaluation should be conducted every year to every five years depending on the engineering analyses required. (See also the preamble discussion on the requirements specified in §§ 257.73 and 257.74 of this rule, in particular the discussion addressing the five year time interval for structural stability and factor of safety reassessments.)

For the reasons discussed above, EPA has concluded, consistent with FEMA guidelines, that routine inspections of all CCR units are necessary to ensure that the units are safely operated and that issues that could disrupt the safety and continuing operation of these units are promptly identified and remediated. Accordingly, the final rule requires both weekly inspections and monthly instrumentation inspections to be conducted at all CCR surface impoundments to confirm that they are operating safely. These inspections must be conducted by a qualified person trained to recognize specific signs of structural instability and other hazardous conditions by visual observation and if, applicable monitor instrumentation. EPA is also retaining the annual inspection requirement for CCR surface impoundments exceeding the specified size threshold established in this rule. This inspection must be conducted and certified by a qualified professional engineer. Units exceeding this size threshold pose a higher degree of risk of release of CCR to the environment than other types of CCR surface impoundments (*e.g.*, incised or "small" CCR units) and as such warrant additional regulatory control and oversight.

¹¹⁴ See "Federal Guidelines for Dam Safety" Federal Emergency Management Agency. (Reprinted April 2004).

The final rule requires that both weekly inspections of the CCR unit and monthly monitoring of CCR unit instrumentation be initiated within 6 months of the publication of the rule.

Within nine months of the publication of the rule, the owner or operator must complete the initial annual inspection of the CCR unit. Initial annual inspection requires the retaining of a professional engineer along with the familiarization of the engineer with the facility and CCR units. Additionally, the annual inspection should not be conducted unless weekly inspection and monthly instrumentation monitoring has been initiated and established in order to generate a body of information for the professional engineer to consider. Furthermore, in some cold-weather regions of the United States, weather may inhibit adequate inspection of CCR units, whether through snow or ice cover. EPA is establishing a timeframe of nine months after the publication of the rule so as to allow for adequate weather conditions for inspection.

1. Surface Impoundment Inspection Requirements

a. Weekly Inspections

As presented in the proposed rule and finalized here, this rule requires all CCR surface impoundments to be examined by a qualified person at least once every seven days for any appearance of actual or potential structural weakness or other conditions that are disrupting or that have the potential to disrupt the operation or safety of the CCR unit. The results of the inspection by a qualified person must be recorded in the facility's operating record.

Weekly inspections are intended to detect, as early as practicable, signs of distress in a CCR surface impoundment that may result in larger, more severe conditions. They are also designed to identify potential issues with hydraulic structures that may affect the structural safety of the CCR surface impoundment and impact the hydraulic and hydrologic capacity of the CCR surface impoundment. The early detection of signs of structural weaknesses is an essential preventative measure which helps to impede structural failure. The required weekly inspections are designed to identify such signs of structural weakness before they develop into larger, debilitating concerns in the structural stability of the dike.

Appearances of structural weakness may include, but are not limited to: (1) Excessive, turbid, or sediment-laden seepage; (2) signs of piping and other internal erosion; (3) transverse,

longitudinal, and desiccation cracking; (4) slides, bulges, boils, sloughs, scarps, sinkholes, or depressions; (5) Abnormally high or low pool levels; (6) animal burrows; (7) excessive or lacking vegetative cover; (8) slope erosion; and (9) debris.

In addition, EPA is also adopting a new provision that requires the qualified person to inspect the discharge of all outlets of hydraulic structures which pass underneath the base of the CCR surface impoundment or through the dike of the CCR unit for abnormal discoloration, flow, or discharge of debris or sediment. The requirement is being added to aid in the identification of any internal or sub-surface issues which cannot be reasonably identified in a routine visual inspection. Abnormal discharges from hydraulic structures are often an indication of potential issues with the sub-surface or internal integrity of the structure. Hydraulic structures, particularly corrugated metal pipe, are subject to deterioration and corrosion over time and, as deterioration proceeds, the hydraulic structure becomes more susceptible to collapse, translation, or malfunction. Issues with hydraulic structures within the dike may exacerbate structural or operational issues with the CCR surface impoundment due to the significant internal deterioration of the dike via the hydraulic structure. As an example, on February 2, 2014, Duke Energy's Dan River Fossil Plant experienced a structural collapse of a corrugated metal storm water discharge pipe which passed underneath the interior of a CCR surface impoundment. The subsequent collapse of the base of the CCR surface impoundment led to a massive release of CCR to the environment. Additionally, the adjacent dike of the CCR surface impoundment was severely damaged due to the erosion of the upstream slope.

Further, an owner or operator may want to consider inspections outside of the weekly, seven-day schedule if an unanticipated event, such as a flood, earthquake, or vandalism occurs on the site. While rare in occurrence, these events may increase the chances that a potential structural stability issue has arisen. Prudent CCR management practices dictate that a visual assessment is warranted after such events. For example, after a large flood (considered a flood with a return period of equal or greater frequency of ten years) there is potential for damage, including structural damage to the CCR surface impoundment, caused by increased reservoir levels that inundate areas infrequently inundated. The slopes of the dike should be inspected

to ensure that no significant erosion has occurred due to the flood, or that any large debris or sediment has been deposited on the dike. An inspection should also be conducted following an earthquake where earthquake damage is observed or can be reasonably expected, where ground motion is felt at the CCR surface impoundment or in nearby locations, or following established magnitude-epicenter distance relationships.¹¹⁵

b. Monthly Instrumentation Inspection

In a departure from the proposed rule, EPA is requiring the monitoring of all instrumentation supporting the operation of the CCR unit to be conducted by a qualified person no less than once per month. This is a change from the proposal which required instrumentation to be monitored no less than every seven days.

Many commenters argued that requiring inspections every seven days was excessive, and that, based on FEMA guidelines for dam safety, a more reasonable timeframe would be once per month for CCR surface impoundments with a hazard potential rating of "high" and quarterly for those CCR surface impoundments with a hazard potential rating of "significant." In considering these comments, the Agency was influenced by a number of factors including the FEMA guidelines suggested by the commenters. Also weighing heavily in EPA's decision were the observations made as part of the Assessment Program, which revealed that many CCR units are equipped with only "basic" measuring devices such as piezometers and pool elevation and freeboard instrumentation and not the more sophisticated (*i.e.*, sensitive) measuring devices for measuring pressure, seepage, internal movement, slope movement; and vibration. These findings strongly suggested to the Agency that, given the status of current instrumentation employed at CCR facilities, weekly monitoring would be excessive, impractical, and—of greatest significance—unlikely to indicate any measurable changes in structural stability in such a short timeframe. EPA, therefore, agrees that a monthly timeframe is a more appropriate interval for detecting discernible or significant changes in the operation of the CCR

¹¹⁵ The U.S. Army Corps of Engineers have developed useful criteria for post-earthquake inspections, specifically their published magnitude-epicenter distance criteria in Table 11.1 of "Safety of Dams—Policy and Procedures," ER 1110-2-1156, 31 March 2014.¹¹⁵ The criteria stipulate when the dam (or in the case of this rule, CCR surface impoundment) should be inspected.

unit. EPA has not, however, differentiated between high, significant, and low hazard potential CCR surface impoundments in the requirement that instrumentation be monitored monthly, as commenters suggested. Through the assessment effort, EPA identified that typically low hazard potential CCR surface impoundments were monitored less frequently than high- or significant hazard potential CCR surface impoundments by the owner or operator. Additionally, these low hazard potential CCR surface impoundments less commonly were equipped with sophisticated monitoring instrumentation, including remote monitoring instrumentation which would allow the owner or operator to monitor the unit from a remote location. Based on these observations, along with the limited burden that instrumentation monitoring places on the owner or operator, the rule requires all CCR surface impoundments with instrumentation to be monitored monthly.

c. Annual Inspections

The rule requires owners or operators of any CCR surface impoundments exceeding the MSHA size threshold (*i.e.*, a height of five feet or more and a storage volume of 20 acre-feet or more; or a height of 20 feet or more) to conduct annual inspections of the CCR unit throughout its operating life. These annual inspections are focused primarily on the structural stability of the CCR surface impoundment and must ensure that the operation and maintenance of the CCR surface impoundment is in accordance with recognized and generally accepted good engineering standards. Inspections must be conducted and certified by a qualified professional engineer.¹¹⁶ Incised CCR surface impoundments, as defined in § 257.53 are not subject to the annual inspection requirements. Incised units present lower risks of structural failure, and so weekly inspections are sufficient to address any risks associated with these CCR units.

Annual inspections of any CCR surface impoundment must include, at a minimum: (1) A review of all previously generated information regarding the status and condition of the CCR unit, including, but not limited to, all operating records and publicly accessible internet site entries, design and construction drawings and other

documentation; (2) a thorough visual inspection to identify indications of distress, unusual or adverse behavior, or malfunction of the CCR unit and appurtenant structures; and (3) a thorough visual inspection of hydraulic structures underlying the base of the CCR unit and passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation. Additionally, following each inspection, the qualified professional engineer must prepare an inspection report which documents the following: (1) Any changes in geometry of the impounding structure since the previous annual inspection; (2) the location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection; (3) the approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since the previous annual inspection; (4) the storage capacity of the impounding structure at the time of inspection; (5) the approximate volume of the impounded water and CCR at the time of the inspection; and (6) any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures; and (7) any other change(s) which may have affected the stability or operation of the impounding structure since the previous annual inspection.

This last set of requirements was originally presented in § 257.84 of the proposed rule (*i.e.*, recordkeeping requirements), however, the Agency has moved these requirements to the annual inspection section of the rule because (1) these requirements apply only to CCR surface impoundments exceeding the specified size threshold, rather than all CCR surface impoundments, as proposed; (2) must be reported annually; and (3) are more appropriately housed in the inspection section.

The owner or operator of existing CCR surface impoundments must ensure that the initial annual inspection by a qualified professional engineer is completed and documented with a report no later than nine months after the publication of the rule. EPA established this timeframe for completing an initial annual inspection based on its experience with the Assessment Program. In an effort similar to conducting an initial annual inspection, the following tasks were generally completed within three months: Retaining the services of a qualified professional engineer,

developing a scope of work, reviewing existing documentation on the CCR unit, conducting a thorough field inspection, and completing an inspection report. Owners and operators of new CCR surface impoundment must commence annual inspections no later than one year from the initial placement of CCR into the new unit. An annual inspection is not required in any calendar year in which the five year structural stability reassessment is also required to be completed. (See §§ 257.73 and 257.74.) The report which the qualified professional engineer has certified must be placed in the facility's operating record and placed on the facility's publicly accessible internet site. An annual inspection is considered complete when the inspection report has been placed in the facility's operating record. Finally, if a deficiency is identified during an inspection, the owner or operator must take immediate measures to remedy the structural weakness or disrupting condition as soon as feasible.

J. Operating Criteria—Inspections for CCR Landfills

Under 40 CFR part 258, EPA does not require specific inspection requirements for MSWLFs. Rather, EPA relies on states to establish their own inspection criteria and frequency of inspections to ensure protection of human health and the environment. It is the Agency's understanding that many states require owners or operators of MSWLFs to conduct either daily, weekly, quarterly and annual inspections of these units to ensure that the design, construction, operation, and maintenance complies with all requirements. In addition, based on a review of selected state regulations most states conduct state inspections of operating landfills no less than annually.

Under the proposed subtitle D option, EPA did not propose to require mandatory inspections of new or existing landfills or any lateral expansion. However, under the subtitle C option, EPA proposed to apply the requirements of § 264.303 to permitted CCR landfills. Specifically, these requirements stated that CCR landfills while in operation would be required to be inspected weekly and after storms to detect evidence of any of the following: (1) Deterioration, malfunctions, or improper operation of run-on and run-off control systems; (2) proper functioning of wind dispersal control systems, where present; and (3) the presence of leachate in and proper functioning of the leachate collection and removal system where present. (See proposed § 264.1306, 75 FR 35257).

¹¹⁶ For purposes of this requirement, qualified means an individual experienced in the operation and maintenance of dams and who has been trained to recognize signs of concern and structural weakness by visual observation, and if applicable, to monitor instrumentation.

Upon further evaluation, the Agency has decided, consistent with the weekly inspection requirements proposed for CCR landfills under the subtitle C option, as well as many state requirements for MSWLFs, to require all existing and new CCR landfills and any lateral expansion to conduct, at intervals not exceeding seven days, inspections by a qualified person for any appearances of actual or potential structural weakness or any other conditions which are disrupting or have the potential to disrupt the operation or safety of the CCR landfill. In addition, EPA is also requiring inspections by a qualified professional engineer at intervals not exceeding one year to ensure that the design, construction, operation, and maintenance of the CCR landfill is consistent with recognized and generally accepted good engineering standards. This inspection must include a review of all data in the operating record as well as a visual inspection of the unit to identify signs of distress or malfunction that is or potentially could affect the safe operation of the unit. The qualified professional engineer must then also prepare a report to identify and discuss the findings of the inspection as well as a discussion of potential remedies for addressing any deficiencies discovered during the inspection. The Agency has concluded that all CCR landfills should be routinely inspected to ensure that they are operating as designed and are being maintained in compliance with the federal criteria.

The Agency is promulgating these inspection requirements based on: (1) A review of state municipal landfill inspection requirements; and (2) comments from parties that clearly supported inspections of all CCR landfills. The Agency reviewed MSWLF inspection checklists in a selected number of states to assess the scope of these inspections. The Agency also conducted a preliminary review of state MSWLF regulations for New York, Pennsylvania, Ohio, Wisconsin, Illinois, Missouri, North Dakota and California. All of these states require MSWLF owners or operators to conduct a either daily, weekly, monthly, quarterly and annual inspections addressing the following: (1) Proper placement of the waste; (2) slope stability and erosion control; (3) surface water percolation is minimized (*i.e.* reduce ponding); (4) liner systems and leachate collection systems are properly operated and maintained; (5) water quality monitoring systems are maintained and operating; (6) dust is controlled; and (7) a plan is in place to promptly address

and correct problems and deficiencies discovered during the inspection. The Agency also noted during its review of state regulations that states reserve the right to inspect landfills at any time and routinely conduct state inspections on a no less than annual basis. CCR landfills present at least the same level of risks as MSWLFs, and while the operations may differ, both operating systems are equally susceptible to malfunction. Weekly inspections of all CCR landfills by a qualified person are therefore equally necessary to ensure that groundwater monitoring, run-on and run-off controls, liner systems, and leachate collection systems are operated and maintained to reduce adverse environmental and human health impacts.

This rule also requires that owners or operators of all existing and new CCR landfills and any lateral expansion conduct an annual inspection, certified by a qualified professional engineer, to assure that these units are designed, constructed, operated, and maintained throughout their operating life to ensure protection of human health and the environment. The Agency finds that annual inspections for these units are justified for a number of reasons. First, CCR landfills are large engineered units that require that a variety of design and operating parameters be assessed to assure that the CCR landfill is operating as designed. Of particular concern to the Agency is the fact that coal ash is a fine grained material that may have the potential to compact and clog leachate collection systems (see: "Operations and Maintenance Guidelines for Coal Ash Landfills" Christopher Hardin, et. al. 2011 World of Coal Ash Conference. May 2011). It is reasonable therefore that the rule requires annual inspections to assure that these liner and leachate systems are assessed to assure that they are performing their functions as designed. Second, a formal annual inspection would review data collected during weekly inspections and determine if any remedial actions are need to address deficiencies. Third, the annual review by a qualified professional engineer ensures that a detailed level of engineering analysis of operating conditions are evaluated which could lead to recommendations to address design or operating issues that need attention.

K. Groundwater Monitoring and Corrective Action

EPA is finalizing groundwater monitoring and corrective action requirements to ensure that groundwater contamination at new and existing CCR units will be detected and

cleaned up as necessary to protect human health and the environment. These requirements reflect Congressional intent that protection of groundwater be a prime objective of any new solid waste regulations. As stated in the proposal, EPA's damage cases and risk assessments indicate there is significant potential for CCR landfills and CCR surface impoundments to leach hazardous constituents into groundwater, impair drinking water supplies and cause adverse impacts on human health and the environment. Indeed, groundwater contamination is one of the key environmental and human health risks EPA has identified with CCR landfills and CCR surface impoundments. Groundwater monitoring is a key mechanism for facilities to verify that the existing containment structures, such as liners and leachate collection and removal systems, are functioning as intended. Thus, in order for a CCR landfill or CCR surface impoundment to show no reasonable probability of adverse effects on health or the environment, a system of routine groundwater monitoring to detect any contamination from a CCR unit, and corrective action requirements to address identified contamination, are essential.

EPA proposed to require that a system of monitoring wells be installed at all new and existing CCR units. The regulation would also provide procedures for sampling these wells and methods for statistical analysis of the analytical data derived from the well samples to detect the presence of hazardous constituents released from these CCR units. The Agency proposed a groundwater monitoring program consisting of detection monitoring and assessment monitoring, and a corrective action program. This phased approach to groundwater monitoring and corrective action programs provides for a graduated response over time to the problem of groundwater contamination as the evidence of such contamination increases. This allows for proper consideration of the transport characteristics of CCR constituents in groundwater, while protecting human health and the environment.

EPA largely based these proposed groundwater monitoring requirements on those for MSWLFs in the 40 CFR part 258 criteria, albeit with certain modifications to tailor the requirements to the case at hand. In particular, the possibility that a state may lack a permit program for CCR units made it impossible to include some of the alternatives available in 40 CFR part 258, which establish alternative standards that allow a state, as part of

its permit program to tailor the default requirements to account for site specific conditions at the individual facility. EPA also sought to tailor the proposed requirements for CCR units, by incorporating certain provisions from the interim status regulations, which operate in the absence of a permit, and by including in several of the proposed requirements, a certification by an independent registered professional engineer that the rule's requirements had been met.

In the proposed rule, the Agency required facilities to install a groundwater monitoring system that met a specified performance standard and that consisted of a minimum of one upgradient and three downgradient wells at all CCR units. EPA acknowledged in the proposal that the design of an appropriate groundwater monitoring system is particularly dependent on site conditions relating to groundwater flow, and on the sufficiency of a system that has a sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that represent the quality of background groundwater that has not been affected by contaminants from a CCR unit. EPA's existing requirements under 40 CFR parts 258 and 264 recognize this, and because they operate in a permitting context, these requirements provide more flexibility in establishing groundwater monitoring systems. But because the same guarantee of permit oversight is not available under the criteria developed for the proposal, EPA proposed to establish a minimum requirement based on the part 265 interim status regulations, which are self-implementing. Long experience demonstrates that these monitoring requirements will be protective of a wide variety of conditions and wastes, and that facilities can feasibly implement these requirements. EPA also noted that in many instances a more detailed groundwater monitoring system will need to be in place, and EPA therefore proposed requiring a certification by the independent registered professional engineer that the groundwater monitoring system is designed to detect all significant groundwater contamination.

EPA also proposed to require that owners and operators of CCR units establish consistent sampling and analysis procedures to determine whether a statistically significant increase in the level of a hazardous constituent(s) has occurred, indicating the presence of groundwater contamination.

As noted, EPA proposed a phased approach to monitoring. The first phase is detection monitoring where indicators would be monitored to determine whether groundwater was potentially being contaminated. The parameters EPA proposed to be used as indicators of groundwater contamination were the following: Boron, chloride, conductivity, fluoride, pH, sulfate, sulfide, and total dissolved solids (TDS). In selecting the parameters for detection monitoring, EPA chose constituents that are present in CCR and would rapidly move through the subsurface, and thus provide an early detection of whether contaminants were migrating from the CCR unit. Under the proposed rule, monitoring would be required no less frequently than semiannually.

When a statistically significant increase over background levels is detected for any of these parameters, the proposed rule required the facility to begin an assessment monitoring program to determine if releases of CCR constituents of concern had occurred. The parameters that were proposed for assessment monitoring were aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chloride, chromium, copper, fluoride, iron, lead, manganese, mercury, molybdenum, pH, selenium, sulphate (sic), sulfide, thallium, and total dissolved solids.

The proposed rule also required that whenever monitoring results indicate a statistically significant level exceeding the groundwater protection standard for any of these parameters, the owner or operator must start the process for cleaning up the contamination, and initiate an assessment of corrective action remedies. The proposed rule required that the assessment of correction action remedies be initiated within 90 days and then completed within 90 days.

EPA proposed that the assessment of corrective measures must consider a number of factors, including the effectiveness, performance, and time needed for the potential remedies. As part of the assessment of corrective measures, the owner or operator was required to identify the source of the release. The owner or operator was also required to gather data on plume definition, fate of the contaminants, stratigraphy and hydraulic properties of the aquifer. The owner or operator also was required to consider whether immediate measures to limit further plume migration or measures to minimize further introduction of contaminants to groundwater would be necessary. EPA also proposed to require the owner or operator to provide

notification of the corrective measures assessment to the State Director, place the corrective measures assessment in the operating record and on the owner's or operator's publicly accessible internet site, and discuss the results of the corrective measures assessment in a public meeting with interested and affected parties.

Based on the results of the corrective measures assessment, EPA proposed to require the owner or operator to select a remedy based on a number of factors, including: the long- and short-term effectiveness and protectiveness of the potential remedy, along with the degree of certainty that the remedy will prove successful; the effectiveness of the remedy in controlling the source to reduce further releases; the ease or difficulty of implementing a potential remedy; the degree to which community concerns are addressed by a potential remedy; and potential risks to human health and the environment from exposure to contamination prior to completion of the remedy. The owner or operator was also required to specify as part of the selected remedy a schedule for initiating and completing remedial activities.

Under the proposed rule, implementing the corrective action program required the owner or operator to establish and implement a corrective action groundwater monitoring program; implement the corrective action remedy selected; and take any interim measures necessary to ensure the protection of human health and the environment, all according to the schedule the owner or operator developed during the assessment of corrective measures.

The proposed rule also required that the owner or operator must demonstrate that concentrations of constituents have not exceeded the groundwater protection standards for three consecutive years in order to support a determination that the remedy is complete.

The majority of the commenters supported "appropriate groundwater monitoring standards for CCR waste management units" and the development of such standards under a RCRA subtitle D framework. Comments were received on various parts of the groundwater monitoring scheme laid out in the proposed rule. The majority of comments received requested EPA to provide "more flexibility" to the proposed requirements. Many commenters wanted the states to be more involved with the process and provided comments suggesting that additional "flexibility," such as is provided in the 40 CFR part 258

regulations for MSWLFs as part of the permitting process, be extended to CCR units. For example, commenters wanted states to have the authority to add or drop monitoring constituents; approve alternative schedules; modify the number of wells needed; allow variances; allow alternatives to the point of compliance specified in the rule; employ alternative methods to detect potential groundwater contamination, such as leak detection systems; allow alternatives to the statistical methods used to determine whether groundwater contamination has occurred; and to replace the qualified professional engineer role in the certification process.

For the final rule, EPA has developed a groundwater monitoring program that is flexible and allows facilities to design a system that accounts for site specific conditions within specific parameters. The final rule establishes an overall performance standard that the system must meet, lays out the minimum requirements of an effective system, and requires the owner or operator to design a system that achieves that overall performance standard based on a full characterization of site conditions.

As described in more detail below, in certain cases, EPA was able to develop performance standards to serve as "more flexible" alternatives to the technical specifications laid out in the proposal. In these instances, the available information allowed the Agency to develop performance standards that were sufficiently objective and determinate that EPA could conclude that the 4004(a) standard would be met nationwide.

However, many of the commenters' requests related to alternatives that would be less stringent than the minimum criteria laid out in the proposal and were based on arguments that state regulators (or facilities) should be allowed to "tailor" those requirements to sites that did not need those particular requirements. As explained at length in the proposal, EPA is concerned that provisions allowing such modifications are particularly susceptible to abuse, since in many cases the provisions could allow substantial cost avoidance. In the absence of a mandated state oversight mechanism to ensure that the suggested modifications are technically appropriate, these kinds of provisions can operate at the expense of protectiveness. In Unit II of this preamble, EPA explains the extent of our authority to establish criteria under RCRA sections 1008(a)(3) and 4004(a), including the implications associated with the lack of any authority to

establish a program analogous to part 258, which relies on approved states to implement the federal criteria through a permitting program. As a result of the statutory structure, this rule is self-implementing and is designed to operate to ensure that facilities will manage CCR in a manner that achieves the 4004(a) standard even in the absence of any regulatory entity available to judge the reasonableness of the desired alternatives. While some states currently do have programs for the regulation of CCR, which in some cases may be more stringent than this final rule, the federal program must be defensible on the record in place at the time the final rule is adopted. Based on the current rulemaking record, in most cases EPA lacked the information necessary to defend the commenters' less stringent alternatives (*i.e.*, the commenters' requested "flexibilities") to the minimum technical criteria specified in this rule for these units. Under both the subtitle C and part 258 programs, EPA can rely on subsequent proceedings to develop the information necessary to support such tailoring. This is clearly neither contemplated nor authorized under the regulatory program relevant to this rule.

In addition, given the extremely technical nature of these requirements, EPA remains concerned that such provisions would render the requirements appreciably more difficult for citizens to effectively enforce. Nevertheless, working within these constraints this rule specifically allows the qualified PE to design a system that accounts for site conditions within the parameters of the minimum technical criteria, and EPA has added language to the regulation that expressly clarifies this. Moreover, states that have programs can continue to impose more stringent requirements, and thus can require, for example, additional monitoring wells, monitoring of additional aquifers, and inclusion of additional parameters to the detection monitoring list or the assessment monitoring list. The following discussion addresses in more detail the technical requirements under groundwater monitoring and corrective action in the final rule.

1. Applicability

Consistent with the provisions in the proposed rule, the final rule requires a system of monitoring wells to be installed at all CCR landfills, CCR surface impoundments and lateral expansions. Existing CCR units must install the groundwater monitoring system, develop their groundwater sampling and analysis procedures,

develop background levels for appendix III and appendix IV constituents, and begin detection monitoring (§ 257.90 through § 257.94) within two years of the effective date of this rule. The proposed rule required that existing CCR units comply with the groundwater monitoring requirements within one year of the effective date. EPA proposed one year believing that it would be feasible for facilities to install the necessary systems. EPA also believed that a one year timeframe would ensure that existing CCR disposal facilities begin monitoring groundwater as soon as possible, so that releases from existing CCR units are detected and addressed. Comments received on this issue argued that the one-year timeframe was not sufficient to complete a hydrogeologic study and develop a monitoring plan. Several commenters requesting more time mentioned staffing shortages and limited contractor and lab resources. One state, referencing its experience relating to development and implementation of groundwater monitoring systems, said that a one year timeframe to investigate, design and submit and obtain approval for the installation of an effective groundwater monitoring system was unreasonable. Most commenters thought that a timeframe of two years was reasonable. After review of the comments received on this issue and careful reexamination of the actual requirements in the final rule, EPA agrees that a one-year timeframe is not feasible, and has decided to extend the timeframes for completing installation of the system, including background monitoring, to two years. As important as it is to begin detecting and addressing releases to groundwater, it is equally important that these complex systems be designed and installed correctly. That generally entails a number of activities, many of which must occur sequentially, including: determining the uppermost aquifer, deciding whether to install a single or multi-unit monitoring system, collecting and evaluating hydrogeological information that can be used to model the site, characterizing the site geology, characterizing the groundwater flow beneath the site, determining the flow direction and hydraulic gradient, establishing horizontal and vertical flow direction, determining hydraulic conductivity, determining groundwater flow rate, determining the monitoring wells placement, selecting the drilling method, designing the monitoring wells, developing sampling and analysis procedures, choosing a statistical method for evaluating the data and

beginning detection monitoring. We also recognize that in some states, the state may require the owner or operator to receive state approval before they can install a groundwater monitoring system. Two years is a more reasonable timeframe in which to carry out these activities. New CCR landfills, new CCR surface impoundments and any lateral expansion must comply with these same requirements (§§ 257.90 through 257.94) before any CCR can be placed in the CCR unit.

Consistent with the proposal, the final rule also requires that the owner or operator of the CCR facility annually certify that each CCR unit is in compliance with the groundwater monitoring and corrective action provisions and provide a copy of this certification to the State Director. Because this is a self-implementing rule that relies on citizen enforcement, it is important for the owner or operator of the facility to periodically document that they are in compliance with the existing groundwater monitoring requirements, and an annual certification is the easiest and most effective way to achieve this. While the groundwater monitoring data will be made available on the owner or operator's publicly accessible Web site and in the operating record of the facility, the analysis of these data is complicated and requires a certain level of scientific expertise to analyze the data correctly. As such, a document that serves as both an interpretative record of scientific analysis and regulatory compliance is critically important to the successful implementation of a self-implementing rule that is to be enforced exclusively by citizens and the states. For similar reasons, the certification must also be placed in the operating record, provided to the State Director, and posted on the owner or operator's publicly accessible Web site.

The groundwater monitoring requirements must be met throughout the active life of the CCR unit, as well as during the closure and post-closure care period.

EPA has added a new provision to § 257.90 to address the corrective action requirements that apply when CCR have been released into the environment, such as from the kind of structural failure that occurred with TVA's Kingston Fossil Fuel plant release, or from the kind of release that occurred in North Carolina at the Dan River. EPA inadvertently drafted the corrective action requirements in the proposed rule to apply exclusively upon detection of groundwater contamination caused by a leaking unit. However, there is no reason to establish different corrective

action provisions for conducting clean-up operations for different kinds of releases; the same general process is applicable to all kinds of releases.

The new provision requires that in the event of a release from a CCR unit, the owner or operator must immediately take all necessary measures to control the source(s) of releases so as to reduce or eliminate, to the maximum extent practicable, further releases of contaminants into the environment. The owner or operator of the CCR unit is also required to comply with all of the relevant corrective action requirements in §§ 257.96, 257.97, and 257.98.

2. Groundwater Monitoring System Requirements

EPA received comments that supported establishing more prescriptive requirements for the design of the groundwater monitoring system. For example, one commenter argued that three downgradient wells are insufficient to ensure detection of leakage from the very large disposal units typically used for CCR; due to uncertainty in flow directions, the perimeter of the CCR unit must be monitored on its cross-gradient, as well as downgradient sides. The commenter suggested that the minimum number of non-background monitoring wells should instead be three, plus one for every 500 feet of downgradient and cross-gradient perimeter of the CCR unit (*i.e.*, if the perimeter length adds up to 1200 feet, the minimum number of wells would be five), and that wells should be spaced no more than 500 feet apart along the downgradient and cross-gradient perimeter. EPA also received many comments arguing that the minimum requirements were overly prescriptive, and that the final rule should instead allow a professional engineer or hydrologist to design "an alternative, but equally effective, groundwater monitoring program." The majority of comments on groundwater monitoring systems requested that EPA not promulgate requirements that would be incompatible with state requirements.

The final rule provisions are fundamentally the same as those in the proposal, although EPA has also added language to the regulations to better clarify how the requirements in the various sections collectively operate. The final rule establishes a general performance standard that all groundwater monitoring systems must meet: All groundwater monitoring systems must consist of a sufficient number of appropriately located wells (at least one upgradient and three downgradient wells) in order to yield

groundwater samples from the uppermost aquifer that represent the quality of background groundwater and the quality of groundwater passing the waste boundary. This is the same performance standard included in the proposed rule. The objective of a groundwater monitoring system is to intercept groundwater to determine whether the groundwater has been contaminated by the CCR unit. Early contaminant detection is important to allow sufficient time for corrective measures to be developed and implemented before sensitive receptors are significantly affected. To accomplish this, the rule requires that wells be located to sample groundwater from the uppermost aquifer at the waste boundary. These requirements have been adopted without fundamental change from the proposal.

Because hydrogeologic conditions vary so widely from one site to another, the rule does not prescribe the exact number, location and depth of monitoring wells needed to achieve the general performance standard. Rather, the rule requires the owner or operator to install a minimum of one upgradient and three downgradient wells, and any additional monitoring wells necessary to achieve the general performance standard of accurately representing the quality of the background groundwater and the groundwater passing the waste boundary. The number, spacing, and depths of the monitoring wells must be determined based on a thorough characterization of the site, including a number of specifically identified factors relating to the hydrogeology of the site (*e.g.*, aquifer thickness, groundwater flow rates and direction). Further, any owner or operator who determines that the specified minimum number of wells is adequate must provide a factual justification for that decision. Factors that may substantiate a reduced density of groundwater monitoring wells includes simple geology (*i.e.*, horizontal, thick, homogenous strata that are continuous across site, with no fractures, faults, folds, or solution channels), a flat and constant hydraulic gradient, uniform hydraulic conductivity, low seepage velocity, and high dispersivity potential.

In essence, the rule establishes a presumption that the minimum of one upgradient and three downgradient wells is not sufficient, and requires the owner or operator to rebut that presumption in order to install only this minimum. This is fundamentally consistent with the proposed rule, which required the installation of a system that would achieve the general performance standard, as well as the

“minimum” of one upgradient and three downgradient wells. The final regulation merely makes more explicit that both of these requirements must be met.

EPA considered establishing a more prescriptive set of requirements, including a specified number, location, and design of monitoring wells, but because of the highly site specific nature of developing an adequate groundwater monitoring system, determined that it lacked sufficient information to be able to design a single groundwater monitoring system that would be nationally protective at all sites. A properly designed system must account for many variables, most of which are highly dependent on the individual characteristics of the unit and the facility site. Consequently, the final rule leaves the exact system design to be determined by those at the site, including a qualified professional engineer, who can tailor the design of the system to the unit and site conditions.

Nevertheless, EPA is confident that the parameters laid out in the regulation will ensure that the design of groundwater monitoring systems at CCR facilities will be protective. As a practical matter, EPA expects that there will be few cases, if any, where four wells will be sufficient, given that this requirement was originally developed for hazardous waste management units that are typically much smaller than CCR units. As mentioned above, a small unit with simple geology, a flat and constant hydraulic gradient, uniform hydraulic conductivity, low seepage velocity, and high dispersivity potential would be the type of unit for which the minimum number of wells could be sufficient to meet the overall performance standard. Although EPA is finalizing a requirement for one upgradient and three downgradient wells as a regulatory minimum, the Agency expects large CCR units to have many more wells because most CCR sites have hydrologic settings that are too complex for the regulatory minimum to be adequate. Facilities with large CCR units could have as many as thirty or more downgradient wells. This is because the placement and spacing of detection monitoring wells along the downgradient perimeter of the CCR unit must be based on the abundance, extent, and physical/chemical characteristics of the potential contaminant pathways. All potential pathways need to be monitored.

Therefore, even though EPA is not requiring a specific number of wells, the Agency is confident that the combination of the requirements will

ensure that protective groundwater monitoring systems will be installed. The owner or operator is required to install a sufficient number of wells to meet the performance standard in § 257.91(a)(1) and (2), provide a justification if they determine the required minimum is adequate, and have a qualified professional engineer certify that their groundwater monitoring system has been designed and constructed to ensure that the groundwater monitoring will meet this performance standard—*i.e.*, accurately represent the quality of groundwater that has not been affected by leakage from any CCR unit—that is, groundwater from background wells and the quality of groundwater passing the waste boundary.

The final rule establishes certain parameters regarding the location of the wells. Upgradient background wells must be located beyond the upgradient extent of potential contamination. However, groundwater quality in areas where the geology is complex can be difficult to characterize. If the facility is new, groundwater samples collected from both upgradient and downgradient locations prior to waste disposal can be used to establish background water quality. Downgradient wells to monitor for any contaminants leaking into the groundwater must be located at the hydraulically downgradient perimeter (*i.e.*, the edge) of the CCR unit or at the closest practical distance from this location.

Determining background groundwater quality by sampling wells that are not hydraulically upgradient may be necessary where hydrogeologic conditions do not allow the owner or operator to determine which wells are hydraulically upgradient (*e.g.*, floodplains, where nearby surface water can influence groundwater). In such cases, the rule allows the owner or operator to establish groundwater quality at existing units by locating wells that are not upgradient under certain conditions (§ 257.91(a)(1)). This provision may be used when hydrogeologic conditions do not allow the owner or operator to determine which wells are hydraulically upgradient and when sampling at other wells will provide data establishing background groundwater quality that is equally or more representative than that provided by upgradient wells. These conditions could include one or more of the following:

- The facility is located above an aquifer in which groundwater flow directions change seasonally.

- The facility is located near production wells that influence the direction of groundwater flow.

- Upgradient groundwater quality is affected by a source of contamination other than the CCR unit.

- The proposed or existing CCR unit overlies a groundwater divide or local source of recharge.

- Geologic units present at downgradient locations are absent at upgradient locations.

- Karst terrain or fault zones modify flow.

- Nearby surface water (*e.g.*, rivers) influences groundwater flow directions.

Additionally, there is nothing in the rule that would prevent the owner or operator from monitoring multiple aquifers in addition to the uppermost significant aquifer. Certain site conditions warrant more extensive monitoring requirements, as discussed in “Technical Manual Solid Waste Disposal Facility Criteria”, EPA530-R-93-017, USEPA, November, 1993, Chapter 5, Subpart E, Ground-Water Monitoring and Corrective Action.

Each CCR unit must have its own groundwater monitoring system, unless the owner or operator chooses to install a multiunit groundwater monitoring system. The final rule specifies that if a multiunit system is installed, it must be based on the consideration of several factors, including the number, spacing, and orientation of the CCR units, the hydrogeologic setting, the site history and the engineering design of the CCR units. A multiunit groundwater monitoring system must be equally capable of detecting background and groundwater contamination at the waste boundary as an individual monitoring system. This documentation must be certified by a qualified professional engineer. Whether a single or multi-unit system has been installed, the monitoring wells must be cased in a manner maintaining the integrity of the borehole and must be maintained so as to meet design specifications. Both of these provisions have been adopted from the proposal without revision.

3. Sampling and Analysis Requirements

EPA received comment on several aspects of its proposed requirements for conducting groundwater sampling and analyses. Specifically mentioned here, commenters raised concern about the number of samples required to establish background concentrations and about the statistical test methodologies specified in the proposal. As discussed below, EPA has modified the rule to account for the issues raised by these commenters. The sampling and analysis requirements in the final rule have

otherwise been adopted from the proposed rule with only minor clarifications.

The rule provides procedures for sampling monitoring wells and methods for the statistical analysis of groundwater monitoring of appendix III (detection monitoring) and appendix IV (assessment monitoring) constituents that may be released from CCR units. The sampling and analysis program must include procedures and documentation for sample collection (including the frequency, water level measurements, well purging, field analyses, and sample withdrawal and collection); sample preservation and handling (including sample containers, sample preservation, sample storage and shipment); chain of custody control; analytical procedures (appropriate methods can be found in “*Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*,” SW-846 (USEPA, 1986), <http://www.epa.gov/waste/hazard/testmethods/sw846/online/index.htm>); and quality assurance/quality control. More information and guidance can be found in “*Technical Manual Solid Waste Disposal Facility Criteria*,” EPA530-R-93-017, USEPA, November, 1993, Chapter 5, Subpart E, Ground-Water Monitoring and Corrective Action, as well as the “*Unified Guidance Document: Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities*,” March 2009, EPA 530/R-09-007.

Similar to the approach used in designing a groundwater a number of system, the final rule adopts a combination of a general performance standard for groundwater sampling and analytical methods, along with particular technical specifications that must be met. The general performance standard requires that the method used must accurately measure hazardous constituents and other monitoring parameters. In addition, the rule specifies that groundwater elevations must be measured in each monitoring well immediately prior to sampling. Also, the rate and direction of the groundwater flow in the uppermost aquifer must be determined each time groundwater is sampled. Further, the rule specifies that the background groundwater quality must be established at a hydraulically upgradient well for each of the monitoring parameters or constituents required by the applicable groundwater monitoring program, except as provided in § 257.91. The number of samples collected to establish groundwater quality data must be consistent with the appropriate statistical procedures determined for the specific statistical method chosen. The

sampling must also be conducted to account for both seasonal and spatial variability in groundwater quality.

To establish background levels, the proposed rule required that “a minimum of four independent samples from each background and downgradient well must be collected and analyzed . . .” 75 FR 35247–35248 (proposed §§ 257.93(f) and 257.94(b)). This is the same sampling protocol that EPA adopted for both the subtitle C and part 258 groundwater monitoring requirements.

EPA received comments criticizing this sampling protocol. Several commenters stated that more than the required four samples were needed in order to adequately represent background water quality and reduce the number of false negatives. For example, one commenter argued that EPA should require a minimum of one year of monthly monitoring of background concentrations to characterize fluctuations in parameters that will be evaluated statistically. The commenter claimed that this would also help to ensure that quarterly monitoring events are properly timed. Another comment stated that more data points and time were needed to ensure statistical confidence in the data. By contrast, another commenter objected to the requirement to obtain four independent samples, arguing that this requirement was unnecessary and should be deleted. The commenter argued that this requirement was inconsistent with EPA’s Unified Guidance (EPA, 2009) for Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, which specifies that replicate samples (*i.e.*, multiple samples from the same location during a given sampling event) should typically be limited to the collection of two samples from the same location, rather than four. Another commenter requested clarification on the number of samples required when establishing background levels that would serve as the point of comparison in determining whether a statistically significant increase over background levels had occurred.

In response to these comments, EPA reviewed the available information to determine whether revisions to the proposed requirements were warranted.

More recent information developed since the promulgation of the subtitle C and part 258 groundwater monitoring requirements indicates that statisticians now generally consider sample sizes of four or less to be insufficient for good statistical analysis because the observations are too few to adequately characterize the parameters of the

population. Tests utilizing a small background sample size have low statistical performance in terms of power and per-test false positive rates. In 2009, EPA issued a guidance document that accounts for more recent scientific developments, “*Unified Guidance Document: Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities*,” March 2009, EPA 530/R-09-007. This guidance recommends a minimum of eight to ten independent background observations be collected before performing the first statistical test. Sample sets of 20 are considered optimal.

RCRA regulations are predicated on having appropriate and representative background measurements. Samples should be tested against data which best represent current uncontaminated conditions. In addition, as discussed further in Unit VI.K.5 below, the detection of a statistically significant increase over background concentrations of the constituents of concern will have serious implications for unlined surface impoundments, as these units will be required to close whenever the facility makes such a finding. EPA is also cognizant of the significant differences between the subtitle C and part 258 regulations and the final regulations being promulgated for CCR units. Both the subtitle C and the part 258 MSWLF requirements are implemented under permit programs, under which regulatory authorities are specifically authorized to establish more stringent requirements to account for scientific advances (among other things). EPA expects that current permits generally specify a greater number of samples than the minimum laid out in the regulations (*i.e.*, more than four) to determine background concentrations. And because of this it is less critical that those regulations (subtitle C and part 258) reflect the most current science. By contrast, as previously discussed, the provisions adopted under this rule are self-implementing, and will only be updated through a subsequent rulemaking. Accordingly, the Agency agrees with the comments that four samples would be insufficient and has amended the rule to require the owner or operator to collect, at a minimum, eight statistically independent and identically distributed (spatially invariant) samples from each well for each monitoring parameter. Although still a small sample size by statistical standards, eight independent observations allows for minimally acceptable estimates of variability and evaluation of trend and goodness-of-fit. While more samples, including a full

year of background monitoring, would be scientifically ideal, the Agency selected eight samples by balancing the minimum number needed to ensure the scientific accuracy of the results against the need to expedite initiating the groundwater monitoring process of detecting exceedances, along with any necessary corrective action at these facilities.

Background sampling (*i.e.*, the requirement to collect eight statistically independent samples from each well) must be completed for all appendix III and IV constituents by the end of the 24 month period to begin implementation of the groundwater monitoring program.

EPA has also revised the regulatory text relating to the number of samples that must be collected during subsequent sampling events after background concentrations have been established to clarify how the various provisions collectively operate. Consistent with the proposal, the final rule requires the owner or operator to collect and analyze the number of samples from each well necessary to be consistent with the statistical test selected under § 257.93(e) and with the unique characteristics of the site, but at minimum, to collect at least one sample from each background and downgradient well. In cases where the groundwater is “well-behaved” one sample from each compliance well could be all that the owner or operator would need to conduct the necessary comparisons. But if statistical assumptions are not met (*e.g.*, the observations are not statistically independent or background well data show trends) a comparison based on a single observation will not yield a significant result, and will likely result in a false positive. Further, detection monitoring tests, such as Student’s t-test, look at the difference between the sample means (*e.g.*, upgradient vs downgradient) to determine when an observed difference should be considered more than a chance fluctuation. Every t-test assumes that the observations that make up each data group meet the requirements of statistical independence and stationarity. Therefore, the larger the sample size the more significant the result. In other words, a facility can choose to use only one observation (a group size of one), but the chances are good that the result derived would be non-significant, since there are many reasons sample means can vary. Consequently, it is likely to be in the facility’s best interest to take more samples than the minimum, particularly in the early stages of monitoring. As monitoring continues, each successive

sample will be added to the sampling data base, which will increase the confidence in the statistical analyses performed. Additional guidance on sample size can be found in the “*Unified Guidance Document: Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities*,” March 2009, EPA 530/R-09-007.

The requirements for applying statistical procedures in the rule are the same as those included in the proposed rule, which were based on the statistical procedures used in the MSWLF regulations. The rule requires the owner or operator to select from among the listed statistical procedures based on a determination that the test is appropriate for evaluating groundwater at that site. The statistical method chosen must be appropriate for the distribution of chemical parameters or hazardous constituents. The rule has been revised to include the clarification that normal distributions of data values shall use parametric methods and non-normal distributions shall use non-parametric methods. The rule identifies four statistical procedures, along with an alternative procedure that must meet the performance standard of § 257.93(g). The four specific statistical procedures provided in this final rule are: (1) A parametric analysis of variance followed by multiple comparison procedures to identify statistically significant evidence of contamination; (2) an analysis of variance based on ranks followed by multiple comparison procedures to identify statistically significant evidence of contamination; (3) a tolerance or prediction interval procedure; and (4) a control chart approach. The performance standard for the alternative method in subsection (g) is the same as the performance standard in the proposal, with minor revisions. EPA has deleted the performance standard “protect human health and the environment” in subsections (3), (4) and (5). While that standard is perfectly appropriate in a context in which a regulatory authority will apply the standard, EPA is concerned that a qualified professional engineer will be unable to certify that any alternative statistical method meets that standard. EPA received comments from professional engineers raising concern about their ability to certify that many of the requirements in the proposed rule had been met without further specification or clarification. To address those concerns, in those three provisions EPA has substituted a more objective performance standard that more precisely defines the relevant issues to be considered. Specifically, the

subsections now specify that those approaches must be “at least as effective as any other approach in this section for evaluating groundwater.”

The data objectives of the monitoring, in terms of the number of samples collected and the frequency of collection, must be consistent with the statistical method selected. Guidance on selecting a specific method is described in “*Unified Guidance Document: Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities*,” March 2009, EPA 530/R-09-007. The owner or operator must indicate in the operating record the statistical method that will be used in the analysis of groundwater monitoring results.

The owner or operator must conduct the statistical comparisons between upgradient and downgradient wells within 90 days of completion of each sampling event and receipt of validated data. The statistical comparison must be conducted in order to determine if a statistically significant increase has occurred over background levels for each parameter or constituent required in the particular groundwater monitoring program that applies to the unit as determined under §§ 257.94(a) or 257.95(a). This has been adopted without revision from the proposal.

EPA is finalizing as proposed the prohibition in § 257.93(b) on field filtering groundwater samples because filtration of samples for metals analyses will not provide accurate information concerning the mobility of metals contaminants, the primary objective of groundwater sampling. Metal contaminants may move through fractured and porous media not only as dissolved species, but also as precipitated phases, polymeric species, or adsorbed to particles of colloidal dimensions (<10 microns). For an assessment of mobility, all mobile species must be considered, including suspended or colloidal particles acting as absorbents for contaminants. Filtration of groundwater samples for metals analyses will not provide accurate information concerning the mobility of metal contaminants because some mobile species in solution are likely to be removed by filtration before chemical analysis. Significant underestimations of mobility may result if filters (typically 0.45 micron) are used to separate dissolved and particulate phases.

In its approach to sampling EPA is specifying in the final rule that owners and operators use ‘total recoverable metals’ concentrations in measuring groundwater quality. Measurement of total recoverable metals captures both the particulate fraction and dissolved

fraction of metals in natural waters. Exceedances of ambient water criteria on a total recoverable basis are an indication that metal loadings could be a stress to an ecosystem.

One commenter argued that to prohibit field filtering would potentially bias the results artificially high, particularly at sites where low yielding formations or naturally high levels of turbidity in groundwater are encountered. However, high turbidity can also be the consequence of faulty well design and/or construction, which causes the introduction of foreign materials (high turbidity) through created fracture pathways. A properly designed well should allow for sufficient groundwater flow for sampling, minimize the passage of materials into the well, and exhibit sufficient structural integrity to prevent collapse of the intake structure. It is vital that the well provide a representative hydraulic connection to the geologic formation of interest. Otherwise the water chemistry information cannot be correctly interpreted in relation to groundwater flow or transport of chemical constituents.

Sampling with no filtration means that increased importance is placed on proper well construction and purging sampling procedures to eliminate or minimize sources of sampling artifacts. There should be nothing in the well design that will lead to high levels of turbidity. Groundwater sampling should be conducted utilizing EPA protocol low stress (low-flow) purging and sampling methodology, including measurement and stabilization of key indicator parameters prior to sampling. For purposes of sampling, this final rule presumes that a properly constructed well is capable of yielding groundwater samples with low turbidity (≤ 5 Nephelometric Turbidity Units (NTU)), and by knowing the cause of turbidity the qualified professional engineer will be able to optimize well performance and reduce turbidity levels, eliminating the need for filtration.

EPA is revising § 257.93(i)(2) to specify a time period of 90 days to determine if a statistically significant increase over background concentrations of one of more of the contaminants has been detected. As proposed, this section specified: "Within a reasonable period of time after completing sampling and analysis, the owner or operator of the CCR landfill or surface impoundment must determine whether there has been a statistically significant increase over background at each monitoring well." Commenters pointed out that this

section of the regulation was very vague, and potentially unenforceable. Several commenters suggested that once sampling and analysis had been completed, 90 days would be a reasonable amount of time to complete the statistical analysis to determine whether an exceedance had occurred. No commenter suggested a longer period of time was necessary and that timeframe is consistent with the Agency's experience of the timeframes necessary to complete such analyses. Accordingly, we have revised the provision to require the determination of a statistically significant increase to be made within 90 days of sampling and analysis.

4. Detection Monitoring Program

With three exceptions, EPA is finalizing the regulatory provisions relating to detection monitoring as proposed. The three revisions are the appendix III list of monitoring parameters; the required number of samples to determine background concentrations; and the availability of an option to conduct detection monitoring on a less frequent basis due to a lack of groundwater.

The detection monitoring phase of the groundwater monitoring program in this rule requires that the owners or operators of CCR units establish background concentrations for all monitoring parameters (appendix III and IV of part 257) and sample at least semiannually during the active life of the facility, closure, and post closure periods for a set of detection monitoring indicator parameters (appendix III of part 257).

In response to comments, EPA has revised appendix III to delete conductivity and sulfide from the list of monitoring parameters and to add calcium. Thus, the list of parameters included on the detection monitoring list is boron, calcium, chloride, fluoride, pH, sulfate and total dissolved solids (TDS). The Agency has deleted conductivity from the detection monitoring program because it is merely a proxy for TDS, which is already included on the list of parameters to analyze during detection monitoring. The Agency has also deleted sulfide because it occurs in groundwater only under strongly reducing conditions, and such conditions are rather rare at CCR disposal facilities. Calcium is being added to appendix III because it is an indicator of the extent of leaching from fly ash and FGD gypsum and because of the strong demonstrated link between the leaching of calcium and arsenic, which is one of the primary risk drivers identified in the risk assessment.

As discussed in the preceding section, in detection monitoring, a minimum of eight independent samples from each background and downgradient well must be collected and analyzed for the appendix III and IV parameters no later than 24 months from the effective date of the rule. During subsequent sampling events, at least one sample from each background and downgradient well must be collected and analyzed, although the total number of samples must be consistent with the statistical procedures selected and with the performance standard in § 257.93(g). See discussion above in section 3. Sampling and Analysis Requirements.

Under the proposed rule, monitoring would be required no less frequently than semiannually. In the final rule, semiannual sampling remains the general requirement; however, in response to comments, EPA has decided to include a provision that would allow an alternative sampling frequency if there is not adequate groundwater to flow to sample wells semiannually. Specifically, EPA received comment stating that there may be instances where there simply is not enough water available to collect and analyze on a semiannual basis, especially in western climates where the rate of groundwater recharge may be too slow or a lack of precipitation exists. The commenter also provided an example demonstrating that mining practices in adjacent areas can greatly alter the groundwater flow. Accordingly, EPA has included a provision to address the situations where there is insufficient groundwater available to collect and analyze samples around CCR units on a semiannual basis.

An owner or operator seeking to establish an alternative frequency must demonstrate that less frequent monitoring is necessary based on the following three factors: (1) Lithology of the aquifer and the unsaturated zone; (2) hydraulic conductivity of the aquifer and the unsaturated zone; and (3) groundwater flow rates. In addition, the rule requires the owner or operator to demonstrate that any alternate sampling frequency would be no less effective in ensuring that any leakage from the CCR unit will be discovered within a timeframe that does not materially delay the initiation of any necessary remediation measures. The owner or operator must have a qualified professional engineer certify that the alternative (*i.e.*, less frequent) monitoring will achieve this performance standard. The final rule also specifies that any alternate frequency during the active life (including closure) and the post-closure

care period shall be no less than annual. As noted, the owner or operator will bear the burden of justifying an alternate frequency under this regulation, and in any court proceeding brought to enforce these requirements. This means that any uncertainty or lack of information will be weighed against the entity seeking to justify the alternate frequency.

Consistent with the proposed rule, if the owner or operator determines that there is a statistically significant increase (SSI) over background for one or more of the parameters listed in appendix III at any monitoring well at the waste boundary, the owner or operator must place a notice in the operating record and on the facility's internet site indicating which parameters have shown statistically significant changes from background levels and notify the State Director.

The facility must also then establish an assessment monitoring program and begin monitoring within 90 days. The owner or operator has the opportunity to demonstrate that a source other than the CCR unit caused the statistically significant increase or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation or a natural variation in groundwater quality. Within 90 days, the owner or operator must prepare a report documenting this demonstration which must then be certified by a qualified professional engineer verifying the accuracy of the information in the report. If a successful demonstration is made within 90 days, the owner or operator may continue detection monitoring. If a successful demonstration is not made within 90 days, the owner or operator must initiate assessment monitoring.

Commenters raised concern that 90 days would not be sufficient to complete all of the activities necessary to determine whether the detection of an SSI was from another source than the CCR unit or was based on inaccurate results. The Agency recognizes that in some circumstances it could take more than 90 days to resample and have laboratories conduct new analyses, or to conduct field investigations to determine that another source is causing the contamination. As a result, § 257.94(e)(3) does not place an ultimate time limit for owners and operators to complete the demonstration. However, if after 90 days the owner or operator has not made a successful demonstration, (s)he must begin an assessment monitoring program. At this stage, there is evidence to indicate that a release has occurred from the CCR unit, and while EPA agrees that the facility may want to confirm that the

information is accurate, it is critical that the facility not delay indefinitely the more targeted monitoring to determine whether a constituent of concern is contaminating groundwater. It would not be consistent with the statutory standard to allow a facility unlimited time to delay taking reasonable steps to assess, and if necessary, address potential contamination by continuing to resample until they obtain a "better" answer. Moreover, initiation of an assessment monitoring program does not involve an irrevocable commitment of resources or even a significant investment by the facility, but only requires the facility to begin more targeted sampling for constituents of concern. This represents a reasonable first step to address a potential threat to groundwater. This requirement is also in the MSWLF part 258 regulations. For more information see 56 FR 51078 (October 9, 1991).

Subsequent to initiating the assessment monitoring program, if an owner or operator demonstrates that the statistically significant increase resulted from an error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality, or was caused by a source other than the CCR unit, the owner or operator may cease assessment monitoring and return to detection monitoring. If the demonstration is successful, the owner or operator must have the demonstration certified by a qualified professional engineer, and is required by § 257.94(e)(3) to place a notice in the operating record, and on publicly accessible Internet site and send a copy of the report to the State Director.

5. Assessment Monitoring Program

EPA is adopting an assessment monitoring program that is largely identical to the program laid out in the proposal. However, as discussed in more detail below, some revisions have been made; some were made in response to comments, but most are conforming changes made to be consistent with changes adopted in other provisions, such as the detection monitoring program described previously.

Consistent with the proposed rule, if any of the detection monitoring parameters are detected at a statistically significant level over the established background concentrations, the owner or operator must proceed to the next step, assessment monitoring. Assessment monitoring requires annual sampling and analysis for the full list of constituents included in appendix IV. The number and frequency of samples required for assessment monitoring are

the same as those established for detection monitoring. See discussion above in 3. Sampling and Analysis Requirements.

EPA has also revised the list of constituents in appendix IV by deleting the following constituents and parameters: Aluminum, boron, chloride, copper, iron, manganese, pH, sulfate, sulfide, and TDS; and adding the following constituents: Cobalt, lithium, and radium 226 and 228 combined. The following constituents and parameters are being removed from appendix IV because they are on appendix III and therefore will continue to be monitored throughout assessment monitoring: Boron, chloride, pH, sulfate and TDS. Although fluoride is on appendix III, we are also retaining it on appendix IV because it does have an MCL and was found to pose risks in the 2014 risk assessment, and therefore is appropriately considered to be a constituent that is relevant for purposes of corrective action. Aluminum, copper, iron, manganese, and sulfide have been removed because they lack maximum contaminant levels (MCLs) and were not shown to be constituents of concern based on either the risk assessment conducted for this rule or the damage cases (see Units X and XI of this document). Cobalt has been added to appendix IV because cobalt was found to be a risk driver in the 2014 risk assessment, based on certain waste management disposal practices that lead to highly acidic wastes conditions. Lithium is being added to appendix IV because it has been detected in several proven and potential damage cases at levels exceeding EPA's Regional Screening Level (RSL) of soil to groundwater and has been determined as potentially toxic if consumed concurrently with certain drug types.¹¹⁷ Radium 226 and 228 combined (the sum of the radioactive isotopes radium-226 and radium-228) is being added because there is evidence from several damage cases of exceedances of gross alpha, indicating that radium from the disposal of CCR may be problematic. Appendix IV now contains antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum,

¹¹⁷ EPA's Regional Screening Level (RSL) Soil to Groundwater Supporting Table (TR = 1E-6, HQ = 1) May 2014/Mid-atlantic Risk assessment: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm; and Health Consultation: Chesapeake ATGAS 2H Well Site Leroy Hill Road, Leroy, Leroy Township, Bradford County, Pennsylvania, October 29, 2013. U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry Division of Community Health Investigations Atlanta, Georgia. <http://www.atsdr.cdc.gov/>.

selenium, thallium and radium 226 and 228 combined.

If any appendix IV constituents are detected in any appendix IV analyses, the owner or operator must notify the State Director and continue to monitor, at least semiannually, for both the specific constituents in appendix IV that were detected and all parameters in appendix III. EPA has decided to also include a provision to allow an alternative sampling frequency if there is not adequate groundwater to flow to sample wells semiannually, consistent with the revised provision adopted for the detection monitoring program. If the owner or operator demonstrates at any time during assessment monitoring that all of the detected appendix III and IV constituents are at or below background values for two consecutive sampling events, (s)he must notify the state and may return to detection monitoring. In general, EPA expects that appendix III constituents are unlikely to remain elevated once measures have been taken to address the release of the detected appendix IV constituents. But should appendix III constituent levels remain elevated, detection monitoring continues to be necessary to determine whether another source of contamination is present.

After obtaining the sampling results the owner or operator must place a notice in the operating record and on the facility's internet site indicating which appendix IV constituents have been detected and notify the State Director. Within 90 days and on at least a semiannual basis thereafter, the owner or operator must resample all wells, conduct analyses for all parameters in appendix III and for those constituents in appendix IV that were detected in the initial assessment monitoring sampling event. The results of this resampling must be placed in the owner or operator's operating record, as well as its publicly accessible internet site. The results of the resampling must also be sent to the State Director. These provisions have been adopted without change from the proposal.

For each appendix IV constituent that is detected, a groundwater protection standard must be set. The groundwater protection standards must be the MCL or the background concentration level for the detected constituent, whichever is higher. If there is no MCL promulgated for a detected constituent, then the groundwater protection standard must be set at background. The proposed rule would have allowed the owner or operator to establish an alternative groundwater protection standard for constituents for which MCLs have not been established

provided that the alternative groundwater protection standard has been certified by an independent registered professional engineer and the state has been notified that the alternative groundwater protection standard has been placed in the operating record and on the owner's or operator's publicly accessible internet site. This provision had been adopted from the part 258 regulations, but was determined to be inappropriate in a self-implementing rule, as it was unlikely that a facility would have the scientific expertise necessary to conduct a risk assessment, and was too susceptible to potential abuse. Additionally, numerous comments were received suggesting that only those constituents with MCLs be included in appendix IV. The commenters were concerned that only MCLs are enforceable. With the exception of cobalt, lead, lithium and molybdenum (included on appendix IV because of their relevance in the risk assessment and damage cases), all appendix IV constituents have an MCL. In the proposed rule, as stated above, owner or operators were allowed to establish certain types of alternative groundwater protection standards. In the final rule, if a constituent has no MCL (*i.e.*, cobalt, lead, lithium and molybdenum), their groundwater protection standards will be their background levels. These background standards are sufficiently precise that they are enforceable.

The owner or operator must compare the levels of any detected appendix IV constituents to the appropriate groundwater protection standard. If the concentrations of all appendix IV constituents are shown to be at or below background values for two consecutive sampling events using the statistical procedures required by § 257.93, the owner or operator of the CCR disposal facility must place that information in the operating record and on the facility's publicly accessible internet site and notify the State Director. The owner or operator may then return to detection monitoring.

If the concentrations of any appendix III or IV constituents are above background values, but all concentrations are determined to be below the groundwater protection standard using the statistical procedures required by this rule, the owner or operator must continue assessment monitoring program.

If, however, the monitoring indicates a statistically significant increase for any appendix IV constituent over the groundwater protection standard, the owner or operator is required to notify the State Director and local officials of

this finding and place a notice in the operating record and on the owner or operator's publicly accessible internet site.

The owner or operator also must characterize the nature and extent of the release. As part of characterizing the nature and extent of the release, the owner or operator must install additional wells, as necessary to define the contaminant plume(s) and collect data on the nature and estimated quantity of the material released. Adequate characterization of the release is critical in designing and effectively implementing a protective corrective action program if groundwater remediation is necessary. The purpose of these additional wells is to delineate the contaminant plume boundary and to eventually demonstrate the effectiveness of corrective action in meeting the groundwater protection standard.

Because the requirements for additional monitoring are entirely specific to the site conditions and the size and nature of the release, the Agency is not able to set requirements that precisely specify the location or the number of additional wells that must be installed. Instead EPA has adopted an approach that corresponds to the approach to designing the original groundwater monitoring system under § 257.91. The regulations establish a general performance standard ("install additional wells as necessary to define the contaminant plume") and specify a true minimum of installing at least one well at the facility boundary in the direction of contaminant migration in order to ascertain whether the contaminants have migrated past the facility boundary. The regulations also establish a rebuttable presumption that this minimum is insufficient, requiring the owner or operator to justify a decision to install only this minimum. The requirement to justify the decision to only install the minimum number of additional wells is a revision from the proposal that has been adopted to be consistent with the Agency's overall approach to developing an effective groundwater monitoring system.

The Agency has also added some clarification to the proposed requirement to characterize the nature and extent of the release, by requiring the owner or operator to collect data on the nature and estimated quantity of material released, including specific information on the constituents listed in appendix IV and the levels at which they are present in the material released. This information will be necessary to help the owner or operator characterize the release and assist in ultimately deciding on a remedy.

If contamination has migrated off-site, the owner or operator must notify individuals who own land or reside on land overlying the plume.

In addition to characterizing the nature and extent of the release, the owner or operator must initiate an assessment of corrective measures within 90 days of finding a statistically significant increase over background concentrations, and select the appropriate remedy. During this phase, the owner or operator is required to continue at least semiannual monitoring (or an alternative frequency, no less than annually) for all appendix III constituents and for those appendix IV constituents exceeding the groundwater protection standard. To be consistent with the provisions in detection monitoring, EPA has included a provision that would allow the owner or operator to demonstrate that a source other than their CCR unit caused the contamination or that the statistically significant increase above groundwater protection standards resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. This alternative option will not delay compliance with the next phase of the groundwater monitoring and corrective action program. Thus, until such a demonstration is made, the owner or operator must comply with the other requirements of this section, including initiating the assessment of corrective measures. At this stage, the evidence that the CCR unit is leaking is stronger, and the owner or operator has previously had the opportunity to demonstrate that the finding was made in error under the detection monitoring program, so no further delay in initiating measures to address any groundwater contamination is warranted.

Another change since the proposal is that in addition to complying with all of the corrective action requirements—*i.e.*, initiating an assessment of corrective measures, followed by selection of a remedy and implementation of a corrective action program—if the unit is an unlined surface impoundment, it must either retrofit or initiate closure. Further, where the facility has chosen to install a multi-unit groundwater monitoring system, the detection of an SSI of an appendix IV constituent would trigger the corrective action and closure (or retrofit) of all of the unlined surface impoundments covered by that monitoring system, as there will be no way to isolate a particular unlined unit as the source of the contamination. These requirements are discussed in more detail in the Closure section.

6. Assessment of Corrective Measures

This section of the regulations also largely mirrors the analogous provisions in the proposed rule. EPA added some language to reflect that this section is not limited to the remediation of groundwater from a leaking CCR unit but will also apply to contamination caused by any kind of release from a CCR unit. EPA also made some minor revisions in response to comments, and some editorial changes to conform this provision to changes made in other sections of the rule.

Consistent with the proposal, § 257.96(a) specifies that the assessment of corrective measures must be initiated within 90 days of detecting a statistically significant increase of any of the constituents listed in appendix IV, at a level exceeding the groundwater protection standard(s), or of otherwise documenting a release of contaminants from the CCR unit. The regulation also requires the assessment of corrective measures to be completed in 90 days of such a finding, but in response to comments, EPA is adopting a provision that will allow for a single 60 day extension. Multiple commenters argued that 90 days was not adequate to complete the assessment of corrective measures. Commenters stated that for situations with complex hydrogeology, additional studies and sampling may be required in order to assess potential contributing offsite sources, background levels, and possible remedies. They stated that identification of remedy alternatives, collection and analysis of data used to evaluate remedy alternatives, and discussions with vendors/contractors regarding availability of labor and materials are all critical steps in the remedy selection process. As explained in the “Technical Manual Solid Waste Disposal Facility Criteria,” EPA530-R-93-017, USEPA, November, 1993, Chapter 5, Subpart E, Ground-Water Monitoring and Corrective Action, the owner or operator will need to: (1) Identify and remediate the source of contamination; and (2) identify and remediate the known contamination. The factors that must be considered in assessing corrective measures include source evaluation, plume delineation, groundwater assessment and source control. Based on the comments received, as well as the Agency’s own experience, EPA recognizes that there may be complex situations that require more time to develop a careful and well-thought out corrective measures assessment. Therefore, the final rule has been modified to allow up to an additional 60 days to complete the assessment of

corrective measures, provided that a qualified professional engineer certifies that the additional time is necessary. The initial 90 days plus the additional 60 days, which is within the range of time suggested by the commenters, would provide the owner or operator up to 150 days to complete the corrective measures assessment, which EPA expects will be sufficient. The certification must be placed in the operating record, on the owner’s or operator’s publicly accessible internet site and submitted to the proper state official.

The rule requires the owner or operator to assess the effectiveness of potential remedies in meeting the objectives of § 257.97 by addressing at least: (1) Performance, reliability, ease of implementation and potential impacts; (2) time requirements; and (3) institutional requirements. The proposed rule also included consideration of the costs of remedy implementation. However, that language came directly from the MSWLF rule in part 258. Because Congress did not authorize the consideration of costs in establishing minimum national standards under RCRA section 4004(a), we have removed this factor. In evaluating the performance, reliability, ease of implementation, and potential impacts of each remedy, the owner or operator should evaluate whether specific remedial technologies are appropriate to the problem and the ability of those technologies to achieve the groundwater protection standards. Analysis of a remedy’s reliability should include an assessment of the effectiveness of the remedy in controlling the source of the release and its long-term reliability. Source control measures need to be evaluated to limit the migration of the plume, and to ensure an effective remedy. The regulation does not limit the definition of source control to exclude any specific type of measure to achieve this. Remedies must control the source of the contamination to reduce or eliminate further releases by identifying and locating the cause of the release. Source control measures may include the following: Modifying the operational procedures (*e.g.*, banning waste disposal); undertaking more extensive and effective maintenance activities (*e.g.*, excavate waste to repair a liner failure); or, in extreme cases, excavation of deposited wastes for treatment and/or offsite disposal. Construction and operation requirements also should be evaluated. The analysis of the timing of potential remedies should include an evaluation of construction, start-up, and

completion time. Timing is particularly important if contamination has migrated off-site. Institutional requirements such as local permit or public health requirements may affect implementation of the remedies evaluated and should be assessed by the owner or operator.

The proposed rule included a provision that would allow an owner or operator to determine that compliance cannot be reasonably achieved with any currently available methods. This has been deleted from the final rule. The Agency determined that without state oversight or a permitting program, that provision was potentially subject to abuse and thus, inappropriate to include in a self-implementing rule.

As part of evaluating potential remedies, the owner or operator must hold a public meeting to discuss the remedies under consideration (prior to selecting a final remedy). Once the owner or operator has selected a remedy, he must place a description of the selected remedy in the operating record, on the owner or operator's publicly accessible internet site and notify the State Director.

7. Selection of Remedy

This section of the final rule has been adopted with only minor changes from the proposal. As in the prior section, EPA has revised certain provision to reflect that this section will also apply to the cleanup of contamination caused by a release from a CCR unit. EPA also deleted a provision that had been adopted from the part 258 regulations, but that was determined to be inappropriate in a self-implementing rule as it was too susceptible to potential abuse.

Based on the results of the corrective measures assessment conducted, the owner or operator must select a remedy. The selected remedy must attain all of the performance standards listed in subsection (b). Specifically, the remedy must protect human health and the environment, attain the groundwater protection standards, control the sources of releases so as to reduce or eliminate, to the maximum extent practicable, further releases of appendix IV constituents into the environment, and comply with any relevant standards for management of wastes generated as a result of the remedial activities. EPA included an additional criterion more directly related to remediation of contamination associated with a release, such as from a collapse or structural failure of a CCR unit, which requires the remedy to "remove from the environment as much of the contaminated material that was released from the CCR unit as is feasible, taking

into account factors such as avoiding the inappropriate disturbance of sensitive ecosystems." Together, these criteria reflect the major technical components of any kind of clean up remedy.

The rule also specifies decision criteria to be considered by the owner or operator in selecting the most appropriate remedy. These include: (1) Long and short term effectiveness, and degree of certainty of success; (2) effectiveness of remedy in controlling the source to reduce further releases; (3) ease or difficulty of implementation; and (4) community concerns. Additionally, the rule requires the owner or operator to specify a schedule for implementing and completing the remedial activities. The rule requires the owner or operator to set the schedule because it is impossible for EPA to establish a single schedule appropriate for all possible situations; the schedule will necessarily depend on the nature and size of the contamination, among other factors. The rule outlines six factors to be considered in establishing a schedule for completing remedies (§§ 257.97(d)(1–6)). These factors are: (1) Extent and nature of contamination; (2) reasonable probabilities of remedial technologies in achieving compliance with the groundwater protection standards; (3) availability of treatment or disposal capacity for CCR managed during implementation of the remedy; (4) potential risks to human health and the environment; (5) resource value of the aquifer; and (6) other relevant factors. EPA had included one additional factor in the proposal: "The desirability of utilizing technologies that are not currently available, but which may offer significant advantages over already available technologies in terms of effectiveness, reliability, safety, or ability to achieve remedial objectives." EPA considered that this provision, which could be used to justify delaying remediation measures, was potentially subject to abuse and thus, inappropriate to be included in a self-implementing rule.

For similar reasons, EPA deleted the provisions in the proposal, subsections (e) and (f) that would authorize a facility to determine that remediation of a release is not necessary. These sections which came from the MSWLF rule in part 258 are appropriate where there is state oversight. The preamble to the final MSWLF rule specifically discusses situations in which an approved state may decide not to require cleanup of hazardous constituents released to groundwater from a MSWLF (see 56 FR 51090). However, there is no similar

guarantee that an individual facility will act in the public interest.

8. Implementation of the Corrective Action Program

The proposed rule required the owner or operator to include a schedule for initiating the remedial activities in the schedule for implementing the remedy (§ 257.97(d)). The Agency understands that selecting a remedy is closely related to the assessment process and cannot be accomplished unless a sufficiently thorough evaluation of alternatives has been completed. The process of documenting the rationale for selecting a remedy requires that a report be placed in the operating record that clearly defines the corrective action objectives and demonstrates why the selected remedy is anticipated to meet those objectives. The report must identify how the remedy will be protective of human health and the environment, attain the groundwater protection standards (either background or MCLs), attain source control objectives, and comply with waste management standards.

The selection of a remedy also involves a public meeting with interested parties before finally selecting a remedy. For these reasons, the Agency is not establishing a deadline for completing the remedy selection process, but rather expects it to be completed as soon as practicable. Once the assessment of corrective measures has been completed within the timeframe specified in this rule, and the public meeting has occurred, the facility owner or operator must select a remedy and begin implementing that remedy as soon as is practicable. It is vitally important that the facility selects a remedy as soon as practicable and begins designing and implementing that remedy, so that releases to groundwater are addressed without unnecessary delay. EPA understands that there are a variety of activities that may be necessary in order to select the appropriate remedy (e.g., discussions with affected citizens, state and local governments; conducting on-site studies or pilot projects); and, once selected, to implement the remedy (e.g., securing on-site utilities if needed, obtaining any necessary permits, etc.). That is why EPA does not find it appropriate to set specific timeframes for selecting the remedy or to begin implementing the selected remedy. However, in order to ensure that the community is kept informed as to the progress of selecting and implementing the remedy, EPA is requiring that the facility owner or operator, on a semiannual basis, post status reports/updates on their progress

to their publicly accessible internet site and submit these to the state.¹¹⁸

However, the Agency has concluded that it is reasonable to require that once a remedy has been chosen, the owner or operator of the CCR unit must begin to implement that remedy within a specified period of time. Consistent with the timeframes throughout this section, the final rule requires that within 90 days of selecting a remedy, the owner or operator must have initiated corrective measures, including any interim measures determined to be appropriate, and have established a corrective action groundwater monitoring program (and begin following it). (§ 257.98). This is a reasonable timeframe in which to begin these activities based on EPA's long experience in conducting and overseeing cleanup activities.

The remedy would be considered complete when the owner or operator demonstrates compliance with the groundwater protection standards for a period of three consecutive years, and all other actions required to meet the performance standards in § 257.97(b) have been satisfied (e.g., source control). The owner or operator must obtain certification that the remedy is complete from a qualified professional engineer, and must notify the State Director. The certification must also be placed in the operating record and on the owner or operator's publicly accessible Internet site.

The Agency deleted the provision that allows an owner or operator to determine that compliance cannot be reasonably achieved with any currently available methods. The Agency determined that without state oversight or a permitting program, that provision was potentially subject to abuse and thus, inappropriate to be included in a self-implementing rule.

9. Timing Overview

The groundwater monitoring regulations require that the owner or operator of existing CCR units must comply with § 257.90–§ 257.94 within 30 months of the date of publication of the rule. Essentially, that means that by the end of 30 months, the owner or operator must (1) install the

groundwater monitoring system; (2) document the sampling and analysis procedures; (3) establish which statistical tests will be used to determine exceedances; (4) sample all wells to have a minimum of 8 samples for all appendix III and IV parameters; and (5) determine if there is a statistically significant exceedance of any appendix III parameter, which would trigger assessment monitoring.

New CCR units must comply with §§ 257.90–257.93, including the requirement under § 257.94(b) to collect and analyze eight independent samples from each well for the parameters listed in appendix III and IV to this part to determine background levels for all appendix III and IV constituents, before commencing operation. Essentially, that means that before receiving CCR waste, the owner or operator must (1) install the groundwater monitoring system; (2) document the sampling and analysis procedures; (3) establish which statistical tests will be used to determine exceedances; and (4) sample all wells to have a minimum of eight samples for all appendix III and IV parameters.

If assessment monitoring is triggered, within three months the owner or operator must sample all wells for all appendix IV constituents (minimum of one sample) and resample (minimum of one sample) all wells for all appendix III parameters and those appendix IV constituents that were detected in the first round of sampling. The owner or operator could also simultaneously use this three month timeframe to demonstrate that the statistically significant increase found in detection monitoring was due to another source or sampling and analysis error. While conducting assessment monitoring, the owner or operator must continue sampling for all appendix III constituents and any appendix IV detected constituents semiannually. The owner or operator must sample for all appendix IV constituents annually.

The owner or operator must also establish groundwater protection standards (MCL or background levels) for all appendix IV constituents detected during sampling.

If one or more appendix IV constituents are detected at statistically significant levels above the groundwater protection standards established, or a release from a CCR unit has been detected, corrective action is triggered. The owner or operator must characterize the nature and extent of the release by installing additional monitoring wells, collecting data on the quantity and concentration levels of regulated constituents in the released material,

sampling and notifying the State Director, local government officials, and any persons who own land or reside on the land that overlies the plume if the plume has migrated off site. The owner or operator must also place the notification in their operating record and on their publicly accessible Internet site.

If corrective action is triggered, within three months the owner or operator must initiate an assessment of corrective measures. If the CCR unit is an unlined surface impoundment, the unit must stop receiving CCR and non-CCR wastes and initiate closure of the unit or begin to retrofit the unit within six months. The owner or operator could also simultaneously use these three months to initiate an assessment of corrective measures to demonstrate that the statistically significant increase found during assessment monitoring was due to another source or sampling and analysis error.

The assessment of corrective measures must be completed in three months, with the possibility of an additional two months if the owner or operator demonstrates the need for additional time. The owner or operator must continue assessment monitoring and provide notification of the corrective measures assessment to the State Director and place the assessment in the operating record and on the owner's or operator's publicly accessible Internet site. The owner or operator also must discuss the results of the corrective measures assessment at least one month prior to selection of remedy in a public meeting.

Within three months of selecting a remedy, the owner or operator must initiate remedial activities. Corrective action is completed when the owner or operator demonstrates compliance with the groundwater protection standards for three consecutive years.

L. Closure of Inactive Units.

As discussed in Unit VI.A of this document, EPA proposed that inactive CCR surface impoundments that had not completed closure in accordance with specified standards by the effective date would be subject to all of the requirements applicable to existing CCR surface impoundments. EPA adopted this approach to create an incentive to expedite the closure of these units, with all of the significant risk mitigation that such a measure would entail. EPA is retaining this general approach in the final rule, but has revised the provision to grant inactive CCR surface impoundments more time to complete closure, consistent with the other closure provisions in the final rule. The

¹¹⁸ As evidenced in 42 U.S.C. 6971(f), Congress intended that the OSHA be able to enforce its regulations to protect workers exposed to hazardous waste and that EPA and OSHA would work together to ensure that. EPA is clarifying that it intends that the CCR disposal rule not preempt applicable OSHA standards designed to protect workers exposed to CCRs; thus EPA's final rule on CCR disposal will apply in addition to any applicable OSHA standards. The Agency has added specific regulatory language in this section to address this intent.

final rule extends the deadline to three years from publication of the rule in the **Federal Register**.

The proposal was based on EPA's belief that the timeframes between publication of the final rule and the effective date would be sufficient for facilities to close inactive CCR surface impoundments. This was particularly true under the subtitle C option, where the timeframe between publication and the effective date could be as long as 18 months, due to the need for subsequent action by authorized states. Under the proposed rule, the maximum amount of time a facility would have to initiate and complete closure of a disposal unit was seven months. However, as discussed elsewhere in this preamble, EPA received numerous comments raising concern that these timeframes would essentially be "impossible to meet" for surface impoundments located in certain geographic and climatic conditions, as well as for all of the larger units. These comments convinced EPA that it had not adequately accounted for the complexities inherent in electric generating facility operations, and the different characteristics of CCR surface impoundments in designing the closure provisions in the proposal. EPA has revised the timeframes applicable to closures in the final rule accordingly in light of these issues. See Unit VI.M of this document. These same considerations apply with respect to this provision, and additional time is therefore necessary to make this option truly viable.

EPA selected three years based primarily on two factors. EPA initially focused on the minimum amount of time necessary to close a CCR surface impoundment. As discussed in more detail in Unit VI.M of this document, there can be a substantial range in the amount of time needed to close a surface impoundment, depending on, for example, the size and location of the unit.

However, a critical factor in EPA's decision is that under this approach these units will not be subject to the rule's groundwater monitoring or structural stability requirements (provided they complete closure within three years). Moreover, based on the information in the record, it appears highly unlikely that groundwater monitoring is currently being conducted at these units (as discussed in Unit IV.A of this document, the information on groundwater monitoring requirements applicable to existing units was extremely sparse, but many older units appear to lack effective groundwater monitoring systems). EPA considered

that allowing these inactive units to remain in place without taking measures to address the continuing threat that these units present for a substantial amount of time could not be justified. EPA therefore focused on the amount of time authorized under the rule for implementation of the groundwater monitoring requirements (*i.e.*, 2 years from the effective date) and for key structural stability requirements (*i.e.*, 18 months to complete key analyses).

As discussed in more detail in the next section, the information in the record demonstrates that it is feasible to complete the closure of CCR surface impoundments within three years. EPA recognizes that larger CCR surface impoundments (*i.e.*, above 40 acres) may not be able to close within this timeframe. However, to be able to support this provision, EPA must balance the risk mitigation achieved by closure of CCR surface impoundments against the risks inherent in allowing inactive CCR surface impoundments to remain in place for longer periods of time. The longer inactive CCR impoundments remain without all of the protections provided by the final rule, the greater the potential for significant health and environment impacts. Larger units are also the ones more likely to present the highest risks, and so warrant the greater oversight provided by application of all of the technical criteria to their operation (and closure). Consequently, EPA is unable to justify expanding this option to include the longer timeframes available under §§ 257.102 or 257.103.

The criteria for conducting the closure of inactive CCR surface impoundments are essentially the same as those applicable to active CCR units. Inactive units can either clean close units, or close with waste in place, subject to same performance standards in § 257.102 for all other CCR units. If an inactive CCR surface impoundment is completely closed within the three year timeframe, no other requirements apply to that unit. This means that no groundwater monitoring or other post-closure care requirements would apply to these units. Once an inactive CCR surface impoundment has been breached and dewatered, the risks are essentially the same as the risks associated with an inactive CCR landfill, which are not subject to any requirements under the final rule.

However, owners or operators of inactive CCR surface impoundments that have not completed closure within this timeframe must comply with all of the requirements applicable to existing CCR impoundments. If the facility

intends to maintain the inactive unit indefinitely, whether to provide potential future capacity, or to continue to dredge the unit to provide material for beneficial use, or with the idea that it may be repurposed for other facility operations (*e.g.*, to manage stormwater), there is no basis for distinguishing between these units and actively managed units on the basis of the potential risks. Thus, such units would need, for example, to meet all of the location and structural stability criteria (which could independently compel closure of the unit), install the groundwater monitoring system, and begin to monitor within the timeframes established in the final rule. This also means that any facility that initiates closure under this provision but fails to complete it within this timeframe, must comply with all groundwater monitoring requirements in §§ 257.90–98 (*e.g.*, install groundwater monitoring wells) as well as all of the post-closure care requirements.

M. Closure and Post-Closure Care

Closure and post-closure care are an integral part of the design and operation of CCR landfills and CCR surface impoundments.¹¹⁹ EPA solicited public comment on closure and post-closure care requirements under a subtitle D approach in the proposed rule and sought additional comment on specific closure requirements in a subsequent notice of data availability.

For CCR landfills, the proposed closure and post-closure care requirements were modeled on current regulations that apply to municipal solid waste landfills, which are codified in part 258. In some cases, the proposed requirements were modified to reflect the lack of a mandatory permitting mechanism (see Unit V.A. of this preamble for additional information), in addition to other changes EPA believed were appropriate to ensure that there would be no reasonable probability of adverse effects from the wastes that remain after a CCR unit had closed. For CCR surface impoundments, the Agency modeled the proposed requirements on current regulations that apply to interim status hazardous waste surface impoundments, which are codified in part 265. Some additional proposed provisions were based on requirements currently applicable to water, sediment, or slurry impoundments and

¹¹⁹ As discussed in the proposed rule, EPA's "Guide for Industrial Waste Management" documents the general consensus on the need for effective closure and post-closure care requirements (Chapter 11). This guide can be accessed at <http://www.epa.gov/epawaste/nonhaz/industrial/guide/>.

impounding structures that are regulated by the MSHA. See 30 CFR part 77, subpart C.

The proposed rule included a number of closure and post-closure criteria, including: (1) Requirements to prepare closure and post-closure plans; (2) requirements for conducting closure of a CCR unit when the CCR is removed and when the CCR is left in place, including design criteria for a final cover system; (3) timeframes to commence and complete closure activities; (4) closure and post-closure care certification requirements; and (5) requirements for conducting post-closure care. The Agency received numerous comments on the proposed closure and post-closure criteria, with the majority of comments pertaining to the proposed timeframes for closure (*i.e.*, timeframes for commencing and completing closure) of a CCR surface impoundment. As a result of these comments, EPA solicited additional comments on the timeframes for closure in a NODA published on August 2, 2013 (NODA 3). See 78 FR at 46944. The sections below explain the approach and rationale for the final rule closure and post-closure care criteria based on the comments received in response to the proposed rule and the NODA.

1. Closure Plan

The Agency proposed to require that the owners or operators of CCR landfills and CCR surface impoundments prepare a written closure plan describing the closure of the unit and providing a schedule for implementation of the plan. 75 FR at 35207–08. The closure plan would describe the steps necessary to close the CCR unit at any point during the active life based on recognized and generally accepted good engineering practices. The proposal also identified the minimum information necessary to include in the closure plan. This information included: (1) An estimate of the largest area of the CCR unit that would ever require a final cover during the active life of the CCR unit; (2) an estimate of the maximum inventory of CCR that would ever be present on-site over the active life of the CCR unit; (3) a description of the final cover and the procedures to be used to install the final cover; (4) a description of how the facility will provide for major slope stability following closure; (5) a description of the measures the owner or operator will adopt to preclude the probability of future impoundment of water, sediment, or slurry; and (6) a schedule for the implementation of the closure plan. See proposed § 257.100(a) and (g). The proposed rule would also have required

each owner or operator to develop the closure plan by the effective date of the final rule. Finally, EPA proposed to require the owner or operator to have the closure plan certified by an independent registered professional engineer, in addition to complying with all of the notification and posting requirements under the rule.

EPA received few public comments on either the proposal to develop a closure plan or the individual elements of the closure plan. Some commenters generally supported the requirement for an owner or operator to develop a closure plan for the CCR unit, and no commenters opposed it. However, one commenter requested that EPA include more specific requirements for slope stability in the regulatory language beyond the general requirement to address major slope stability in the closure plan for units that close with waste in place.

The Agency agrees that the proposed regulatory language should provide more specific criteria defining the expectations with regard to major slope stability. The proposed regulation merely required the owner or operator to “provide for major slope stability” in the closure plan, or in other words, to include measures to ensure that slope stability issues will be accounted for in designing the final cover. See 75 FR 35252.

EPA explained that unit closure must provide for major slope stability to prevent the sloughing of the cover system over the wastes that will remain in the CCR unit over the long term. Sloughing of a land slope can occur when the earth material becomes saturated with water and incapable of maintaining the slope resulting in the movement or sliding of the earth material. 75 FR at 35209. Slope stability is a critical issue in the design of final cover systems for both surface impoundments and landfills because cover system slope instability has been attributed to a number of final cover system failures.¹²⁰ More specifically, the primary causes of final cover system slope failure during construction have been identified as: (1) Placing soil over the sideslope geosynthetics from the top of the slope downward, rather than the toe of the slope upward; (2) using presumed values for critical interface shear strengths that were not conservative; and (3) using interface shear strength values from laboratory tests performed under conditions not

representative of the actual field conditions. For final cover system slope failures after rainfall or thaw, the primary causes of failure have been identified as: (1) Not accounting for seepage forces; (2) clogging of the internal drainage layer, which leads to increased seepage forces; and (3) not accounting for moisture in the geomembrane and compacted clay liner interface (which weakened the interface) due to both rain falling on the compacted clay liner surface during construction and freeze-thaw effects.

Given that slope stability is a critical issue in the design and eventual performance of a final cover system, EPA has adopted a new criterion in the performance standard that all closures must meet: The owner or operator must ensure that the CCR unit is closed in a manner that will “provide for major slope stability to prevent the sloughing or movement of the final cover system during closure and throughout the post-closure care period.” See § 257.102(d)(1)(iii). Or in other words, the owner or operator must design a final cover system with any measures necessary to ensure that the major slopes of the closed CCR unit remain stable. Consistent with the proposal, the closure plan must discuss how the final cover system will achieve the performance standards specified in the regulation, which will necessarily include how the measures taken to address major slope stability. As explained in the proposed rule, the original provision was based on existing MSHA standards, specifically the requirements under 30 CFR 77.216–5 which apply to abandoned water, sediment or slurry impoundments and impounding structures.¹²¹ 75 FR 35208–09. Under these requirements major slope stability includes long term stability considerations, such as “erosion control, drainage, etc.” These issues are equally relevant to the closure of CCR units, and EPA expects facilities to account for these factors in their final closure plans.

The remaining information elements of the closure plan have been adopted without revision (although EPA has reorganized the final regulatory text for greater clarity). These are briefly summarized below:

a. An estimate of the largest area of the CCR unit ever requiring a final cover during the active life of the CCR unit. If

¹²⁰ USEPA, “Assessment and Recommendations for Improving the Performance of Waste Containment Systems,” EPA/600/R-02/099, December 2002.

¹²¹ The term “abandoned” is defined in the MSHA regulations under 30 CFR 77.217, and as applied to an impoundment or impounding structure such term means that work on the structure has been completed in accordance with a plan for abandonment approved by the District Manager.

the owner or operator routinely closes portions of a CCR unit as the design capacity is reached, the closure plan should indicate the largest area of the CCR unit that will be open (and requiring a final cover) at one time.

b. An estimate of the maximum inventory of CCR ever on-site over the active life of the CCR unit. If the owner or operator routinely closes portions of a CCR unit as the design capacity is reached, the closure plan should indicate the maximum inventory of CCR that will be open (and requiring a final cover) at one time.

c. A description of the final cover and the procedures to be used to install the final cover. The closure plan should also discuss how the closure performance standard will be achieved.

d. A description of the provisions to preclude the probability of future impoundment of water, sediment, or slurry. The final grades of the final cover system should promote surface water run-off and minimize erosion. The closure plan should also discuss the steepness of the slopes of the final cover system, in addition to the vertical spacing and width of benches.

e. A schedule for the implementation of the closure plan.

This rule also provides new procedures for amending an existing written closure plan. While the proposed rule did not specifically allow or require the owner or operator to revise an existing closure plan, EPA recognizes that available information and conditions known at the time the closure plan is prepared may very well change during the active life of the CCR unit, which could be decades in some cases. In order to eliminate any potential confusion over whether an owner or operator is allowed under this rule to revise the closure plan to reflect a change in conditions or circumstances, the final rule adopts new procedures for amending a written closure plan. These new procedures allow the owner or operator to revise the closure plan at any time provided the revised plan is placed in the facility's operating record, in addition to complying with all of the notification and posting requirements under the rule. Furthermore, the final rule requires the closure plan be amended any time there is a change in conditions that would substantially affect the written closure plan in effect.

Finally, in a departure from the proposed rule, the final rule provides owners and operators one year from the rule's effective date to prepare the initial written closure plan, which is one year longer than proposed. EPA made this change as part of its effort to coordinate

the compliance and implementation timeframes in the CCR rule with another Agency rulemaking—the Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category (ELG) rulemaking—that may affect owners and operators of CCR units. See 78 FR 34442. As explained in that proposal, consistent with RCRA section 1006(b), EPA has sought to effectively coordinate any final RCRA requirements with the ELG requirements, to minimize the overall complexity of these two regulatory structures, and to facilitate the implementation of engineering, financial and permitting activities. EPA's goal is to ensure that the two rules work together to effectively address the discharge of pollutants from steam electric generating facilities and the human health and environmental risks associated with the disposal of CCRs, without creating avoidable or unnecessary burdens.

EPA proposed to require facilities to complete a closure plan by the rule's effective date, or six months following the rule's publication. However, this would have required owners or operators to prepare closure plans approximately three months prior to publication of the ELG final rule. Given that an understanding of the ELG rule would likely affect the details and content of a closure plan, the Agency concluded that it would make no sense to require an owner or operator to prepare a closure plan within six months, only to have them update it months later, after the owner or operator understands the requirements of both the CCR and ELG final rules. No measureable environmental or health benefit would be gained by having a closure plan in place for those three months. Moreover, EPA wants to ensure that closure plans are well considered, and the knowledge that a plan may need to be substantially revised in the near future could create a contrary incentive.

By extending the deadline for preparation of the closure plan by one year, owner or operators will have slightly more than six months after the ELG rule is published to complete a closure plan. This is consistent with the six month timeframe EPA originally proposed, which as noted, would have required completion of the closure plan within six months of publication of the final CCR rule.

2. Closure of a CCR Unit Through Removal and Decontamination

The proposed rule would have allowed facilities to close a CCR unit either through CCR removal and decontamination of all areas affected by

releases from the CCR unit ("clean closure") or with CCR in place with a final cover system. The Agency proposed that if the owner or operator elects to clean close a CCR unit, CCR removal and decontamination are complete when constituent concentrations throughout the CCR unit and any areas affected by releases from the CCR unit do not exceed the numeric cleanup levels for those constituents found in CCR established by the state in which the CCR unit is located, to the extent that the state has established cleanup levels. 75 FR 35208. In the absence of state cleanup levels, the proposal stated that metals should be removed to either statistically equivalent background levels, or to maximum contaminant levels or health-based numbers. Once a facility had completed clean closure of a CCR unit, EPA proposed that post-closure care would not be required for that unit. EPA also noted that it was considering whether to adopt a further incentive for clean closure, under which the owner or operator could remove the deed notation required under the proposed rule, once all CCR has been removed from the facility and notification provided to the state.

Several commenters urged EPA to not require clean closure as the only method of closing a CCR unit, arguing that clean closure is not feasible or not necessary. Others acknowledged that clean closure is not only a viable option for their CCR units, but in some cases it would be "the only prudent closure option." A few commenters suggested criteria to determine the conditions under which clean closure would be appropriate. For example, one commenter agreed with EPA that the risk-based corrective action process (RBCA) would be useful in determining whether waste removal is appropriate at the site.

EPA received relatively few comments on the specific standards for conducting clean closure. One commenter identified six criteria that should be included in any final regulation in order to allow a facility to have been deemed to have completed clean closure of a CCR surface impoundment and thereby avoid post-closure care. Some of the commenter's suggestions were comparable to requirements in the proposal. However the commenter also included requirements to ensure that adequate engineering controls were used to prevent contamination of soil and groundwater during excavation, and requirements for quarterly monitoring of shallow groundwater beneath the surface impoundment for a period of five years to demonstrate that no

residual CCR was left in place. Finally, a number of commenters supported a provision that would allow the owner or operator to remove the deed notation required provided all CCR is removed from the site.

EPA did not propose to require clean closure nor to establish restrictions on the situations in which clean closure would be appropriate. As EPA acknowledged in the proposal, most facilities will likely not clean close their CCR units given the expense and difficulty of such an operation. Because clean closure is generally preferable from the standpoint of land re-use and redevelopment, EPA has explicitly identified this as an acceptable means of closing a CCR unit. However, both methods of closure (*i.e.*, clean closure and closure with waste in place) can be equally protective, provided they are conducted properly. Thus, consistent with the proposal, the final rule allows the owner or operator to determine whether clean closure or closure with the waste in place is appropriate for their particular unit. EPA agrees that the RBCA process, using recognized and generally accepted good engineering practices such as the ASTM Eco-RBCA process, can be a useful tool to evaluate whether waste removal is appropriate at the site. It is, however, not a necessary prerequisite.

EPA has adopted the provisions governing clean closure from the proposed rule with only one revision. The final provisions consist of two performance standards: First, the owner or operator must remove all CCR from the unit and decontaminate all areas affected by releases from the CCR landfill or surface impoundment. As part of meeting this performance standard, the final rule requires facility owners or operators to remove all wastes from the closing unit, and remove all liners contaminated with CCR waste and CCR waste leachate. The final rule also requires the owner or operator to remove and decontaminate all areas affected by releases from the CCR unit. This would require removal or decontamination of the underlying and surrounding soils and flushing, pumping, and/or treating the aquifer. The Agency interprets the term "soil" broadly to include both unsaturated soils and soils containing groundwater.

Second, the final rule specifies that closure has been completed when all CCR in the unit and any areas affected by releases from the CCR unit have been removed and groundwater monitoring demonstrates that all concentrations of the assessment monitoring constituents listed in appendix IV to part 257 do not exceed either statistically equivalent

background levels or MCLs. This standard encompasses both saturated and unsaturated soils, as well as the groundwater. As part of attaining this standard, facility owners and operators will need to document that any contaminants left in the subsoils (*i.e.*, contaminated groundwater left in soils below the former landfill or impoundment) will not impact any environmental media including groundwater, surface water, or the atmosphere in excess of Agency-recommended limits or factors. Typically, any metals in these "subsoils" in excess of background levels are allowed to either naturally attenuate, or are removed by flushing. Once the facility has removed all of the assessment monitoring constituents listed in appendix IV down to background levels or MCLs the groundwater is considered to be "clean" and closure is complete.

EPA disagrees that specific provisions requiring the use of adequate engineering controls to prevent contamination of soil and groundwater during excavation are necessary to ensure that closure will be protective. To the extent that any contamination of soil or groundwater has occurred during CCR removal, this would constitute a release (or an "area affected by a release") from the CCR unit, and the final performance standard requires the facility to ensure that this has been removed before closure is deemed to be complete.

Contrary to the commenter's suggestion that quarterly monitoring for five years is necessary to demonstrate that no residual CCR was left in place, the rule requires a facility to document that all appendix IV concentrations are below MCL or background levels for two consecutive sampling events, using the statistical procedures in § 257.93(g). This is the same sampling required to demonstrate under the groundwater monitoring program that there is no longer a reason to suspect a source of contamination, and that consequently assessment monitoring can cease. EPA selected these provisions as the most factually analogous to the circumstances surrounding the clean closure of a CCR unit. Once a facility has removed the waste and any liner, the presumption is that the source of contamination has been removed as well. Although there may be site-specific factors that could support the need for a longer monitoring period, there is no factual basis to require a longer minimum period of sampling on a national basis.

This represents a change from the proposal. EPA proposed a performance standard that required decontamination

to either any state established numeric cleanup levels for CCR constituents, or in the absence of state cleanup levels, the removal of metals to either statistically equivalent background levels, or to MCLs, or health-based numbers. This was taken directly from the current part 258 standards for MSWLFs. EPA has deleted both of these standards as inappropriate for these units.

The reference to state established clean up levels was inadvertently carried over from the existing part 258 regulations. As explained throughout this preamble, EPA is unable to rely on state programs to establish the specific standards under this rule; the record does not contain information on all state cleanup standards, and there is no mechanism for states to operate approved programs in lieu of federal programs.

EPA determined that the requirement to clean all soils to background levels was equally inappropriate. In practice, EPA does not routinely require complete removal of all contamination (that is, cleanup to 'background') from a closing unit even for hazardous waste units. Requiring CCR units to clean up soils to levels before the site was contaminated, would be more stringent than current hazardous waste policies. There is no basis in the current record to impose provisions for the remediation of CCR units that are more stringent than those imposed on hazardous wastes.

Upon completion, the unit is exempt from the groundwater monitoring and any other post-closure care requirements. In addition, the final rule adopts the proposal to allow the owner or operator to remove the deed notation required under § 257.102(i)(4), upon certification that clean closure has been completed. EPA proposed this option to create a further incentive for clean closure, and it is clear from the commenters, who uniformly supported this option, that it does so. Some commenters raised concern about the effect this option will have on state laws, which may not allow the deed notation to be removed. EPA notes that these criteria do not preempt state laws; to the extent state law requires the facility to retain a deed notation despite the completion of clean closure, those requirements will remain in place, notwithstanding this final rule.

3. Closure of a CCR Unit With CCR in Place

The proposed rule would have also allowed facilities to close a CCR unit by leaving the CCR in place and installing a final cover system. The final cover

system would have been required to be designed and constructed to have a permeability less than or equal to the permeability of any bottom liner system or the natural subsoils present, or a permeability no greater than 1×10^{-5} centimeters per second (cm/sec), whichever is less. The proposal would have also required an infiltration layer that contains a minimum of 18 inches of earthen material and an erosion layer containing a minimum of six inches of earthen material that is capable of sustaining native plant growth to help minimize erosion of the final cover. These proposed requirements were generally modeled after the performance standard and technical requirements contained in § 258.60 for MSWLFs. 75 FR 35208. EPA also proposed that the final cover system would have to be designed to minimize the disruption of the final cover through a design that accommodates settling and subsidence and provides for major slope stability to prevent the sloughing of the closed CCR unit over the long term. These last two criteria are based on existing requirements for interim status units under RCRA part 265 and MSHA requirements under 30 CFR part 77, subpart C, respectively.

As proposed, CCR surface impoundments would have been subject to an additional set of performance standards. The owner or operator of a CCR surface impoundment would have been required to either drain the CCR unit or solidify the remaining wastes. In addition, the owner or operator would have been required to stabilize the wastes to a bearing capacity to support the final cover. The proposed criteria would also have required that the final cover for all CCR units be designed to minimize the migration of liquids through the closed CCR surface impoundment over the long term; promote drainage, and accommodate settling and subsidence so that the final cover's integrity is maintained. Finally, closure of the CCR unit would also have been subject to the general performance standard that the probability of future impoundment of water, sediment, or slurry be precluded.

The Agency also proposed to allow owners or operators of CCR units to select an alternative final cover design. As proposed, the alternative final cover design would have required an infiltration layer that achieves an equivalent reduction in infiltration, and an erosion layer that would provide equivalent protection from wind and water erosion, as the infiltration and erosion layers specified for final covers described above. In addition, the proposed approach for alternative final

cover designs would have also required certification by an independent registered engineer, notification being provided to the state that the alternative final cover design has been placed in the facility's operating record, and placement of the alternative final cover design on the owner or operator's publicly accessible Internet site.

a. Final Cover System Design

EPA received comments supporting the proposed approach, while other commenters opposed the proposed final cover system design requirements. One state commenter generally supported using the part 258 final cover design requirements as a general model for CCR units. This commenter also requested that the Agency clarify whether new CCR units would be required to install a composite final cover system given that it was proposed that new CCR units would be required to be designed and constructed with a composite bottom liner. Another state indicated that its state regulations allow final cover designs similar to that proposed by EPA, although the state requires a 24 inch infiltration layer and a 12 inch erosion layer. Another commenter referenced current research showing that soil-only covers may not be effective in minimizing infiltration over the long term under certain climates. This commenter recommended that a geomembrane should be made a standard component of the cover system. Other commenters stated that the final cover system should be a composite system consisting of a synthetic component and a low permeability clay component. A state commenter offered that post-closure maintenance of composite cap system incorporating a geomembrane has been challenging in that state. Another commenter stated that a compacted clay liner should not be used as a final cover for landfills due to the potential for settlement cracking, desiccation cracking, and root and animal penetration. Instead, it was suggested that if a single barrier system is used, then a benefit-cost analysis favors a geomembrane, and if a composite barrier is to be used, a benefit-cost analysis favors a composite system of a geomembrane and geosynthetic clay liner.

The Agency also received many comments on the proposed approach to allow the use of alternative final cover systems. Most commenters supported allowing the use of alternative covers. One commenter stated that the use of geosynthetic clay liners in lieu of 18 inches of earthen material for the infiltration layer is a commonly

accepted for cover systems for MSWLFs. This commenter also noted that that geosynthetic clay liners have documented permeability characteristics on the order of 1×10^{-9} cm/sec. Another commenter supported allowing the use of alternative cover systems because a one-size-fits-all approach is not appropriate for final cover system designs. A state also offered that appropriately designed alternative final covers such as capillary barrier covers and evapotranspiration covers are being successfully used at facilities in the state.

After considering comments received regarding final covers, the Agency is essentially finalizing the approach in the proposed rule with minor revisions. The final rule allows owners or operators to use a final cover system consisting of an infiltration layer and an erosion layer, provided the infiltration layer has a permeability less than or equal to the bottom liner or natural subsoils. However, regardless of the bottom liner or natural subsoils present, the final cover must have a permeability no greater than 1×10^{-5} cm/sec.

To address the commenters' concerns that the final cover system may not function effectively as designed over the long term under certain circumstances, the rule also includes a performance standard that any final cover system must meet. This standard is modeled after the closure performance standard applicable to interim status hazardous waste units under § 265.111. The final rule requires that any final cover system control, minimize or eliminate, to the maximum extent practicable, post-closure infiltration of liquids into the waste and releases of leachate (in addition to CCR or contaminated runoff) to the ground or surface waters. Thus, a facility must ensure that in designing a final cover for a CCR unit they account for any condition that may cause the final cover system not to perform as designed. This could include accounting for site conditions that may increase the likelihood that a cover would be susceptible to desiccation cracking or settlement cracking. Under this performance standard, if the cover system results in liquids infiltration or releases of leachate from the CCR unit, the final cover would not be an appropriate cover. The final rule requires the final cover system design to be certified by a qualified professional engineer that the design meets both the performance standard and cover system criteria.

The final rule does not require the use of composite final covers, such as a geomembrane underlain by a compacted soil infiltration layer. This is also the

case in situations for a CCR unit that is designed with a composite bottom liner or if the permeability of the soil underlying the unit is comparable to the permeability of a geomembrane. As EPA has concluded for municipal solid waste landfills, in certain site-specific situations it may be possible to construct an infiltration layer that achieves an equivalent reduction in infiltration without matching the permeability in the bottom liner material. 62 FR 40710.

Nonetheless, in certain locations, composite cover systems may be necessary to achieve the rule's performance standards. EPA acknowledges that under certain circumstances issues can arise with compacted clay barriers, particularly when used alone. These can include desiccation, freeze-thaw sensitivity, and distortion due to total and differential settlement of the underlying wastes. These issues can generally be addressed through proper maintenance of the cover system; and in fact the final rule requires as part of post-closure care that the owner or operator maintain the integrity and effectiveness of any final cover, including making repairs to the final cover to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover. Consequently, EPA is not mandating the installation of a composite liner system.

However, fewer problems are typically seen with the use of composite cover systems. And while ongoing oversight and proper maintenance is necessary to ensure the efficacy of any cover system, less effort is generally involved to ensure the continued performance of a composite cover system. EPA therefore generally recommends that facilities install a composite cover system, rather than a compacted clay barrier, as the composite system has often proven to be more effective (and cost effective) over the long term. For these reasons, EPA also anticipates that composite cover systems will be recommended in many circumstances by qualified professional engineers.

The final rule also allows the use of an alternative final cover. The rule requires that the alternative final cover must include infiltration and erosion layer that achieve equivalent performance as the minimum designs specified for final cover systems as discussed above. As discussed in the proposed rule, EPA included this provision to increase the flexibility for an owner or operator of a CCR unit to account for site-specific conditions.

Moreover, these provisions will provide an opportunity to incorporate future technology improvements that would be missed if the rule required prescriptive design measures. In addition, these requirements would not supersede more stringent state requirements. Thus, if a state either has more prescriptive or more stringent standards in its state regulations applicable to CCR units, those state requirements would control any final cover system or alternative final cover system design.

While the rule provides the owner or operator flexibility in selecting the final cover for the unit, EPA remains concerned about the lack of guaranteed state oversight on final cover selection. A final cover system that does not perform as designed may result in unacceptable infiltration of water into the closed CCR unit that may lead to leachate and releases from the unit. To address this concern, as well as the concerns raised by commenters regarding the long-term performance of certain cover systems by providing further assurance that the final cover system will perform over the long term, EPA has deleted the proposed provision that would have allowed owners or operators to shorten the length of the post-closure care period. As discussed in Unit M.9 below, the final rule requires facilities to conduct post-closure care for all CCR units for 30 years.

b. Performance Standards When Leaving CCR in Place

EPA received no significant comments on the proposed performance standards. The Agency is therefore finalizing these requirements without revision from the proposal (although EPA has reorganized the final regulatory text for greater clarity). The performance standards are summarized below:

i. As discussed in the previous section, the CCR unit must be closed in a manner that will control, minimize or eliminate, to the maximum extent practicable, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters.

ii. The CCR unit must be closed in a manner that will preclude the probability of future impoundment of water, sediment, or slurry.

iii. The CCR unit must be closed in a manner that will provide for major slope stability, which is discussed in Unit M.1 of this document for closure plans above.

iv. The CCR unit must be closed in a manner that will minimize the need for further maintenance of the unit.

v. The CCR unit must be closed in the shortest amount of time consistent with recognized and generally accepted good engineering practices. The Agency added this performance standard to be consistent with the final provisions applicable for the timeframes for initiating and completing the closure of CCR units.

4. Timeframes for Closure

The Agency proposed that closure of a CCR landfill or CCR surface impoundment must be initiated by the owner or operator no later than 30 days following the known final receipt of CCR. To address concerns about "inactive" or abandoned units, the proposed rule also provided that a CCR unit must initiate closure no later than one year after the most recent receipt of CCR if the CCR unit had remaining capacity and there was a reasonable likelihood that the CCR unit would receive additional CCR (*i.e.*, the rule would have forced the facility to close the CCR unit). See 77 FR at 35209 and proposed § 257.100(j). In addition, the proposed rule would have required an owner or operator to complete closure activities within 180 days of initiating closure. See proposed § 257.100(k). Thus, the maximum amount of time a facility would have had to initiate and complete closure of a CCR unit was seven months.

While the existing closure criteria for MSWLFs allow the Director of an approved State to grant time extensions for closure (both to initiate and to complete closure) if steps are taken to prevent threats to human health and the environment from the unclosed unit, EPA proposed not to include similar provisions for owners or operators of CCR units. At proposal, the Agency believed that extending the closure deadlines was inappropriate because, in the absence of an approved state program, the owner or operator could unilaterally decide to extend the time for closure of a CCR unit, without any basis, or oversight by a regulatory authority. 75 FR 35209.

EPA received numerous comments in response to the proposed deadlines under the subtitle D proposed approach. Industry and state commenters stated that the proposed deadlines to begin and complete closure activities (30 and 180 days, respectively) are technically impracticable and simply too short for the vast majority of CCR units, especially for CCR surface impoundments to complete closure. Commenters stated that a 30-day deadline to initiate closure activities may not be workable in situations such as when there are construction

limitations due to seasonal or climatic conditions, and should not be required in circumstances when a coal-fired generating unit is temporarily idled (e.g., maintenance related outages or an outage corresponding with a CCR handling system conversion). Regarding the amount of time needed to close a unit, numerous commenters noted that it would be impossible to properly complete closure activities within the proposed 180 days at most CCR surface impoundments due to the length of time needed to dewater an impoundment and stabilize the wastes prior to constructing the final cover system. For example, commenters pointed out that dewatering of a surface impoundment alone can take several years to complete because impoundments can be hundreds of acres in size. One commenter provided information related to an ongoing CCR surface impoundment closure where the dewatering and ash stabilizing phases of closure took two years to complete. Commenters also stated that because a large number of CCR units will have to be closed during roughly the same timeframe, facilities may not be able to obtain the necessary specialized personnel, equipment, and materials (e.g., clay or fill material, liner materials) to close multiple units simultaneously. This issue may be further complicated in locations where multiple facilities are competing for the same limited resources. Commenters further argued that adopting the same closure deadlines applicable to MSWLFs is not appropriate given differences in size, design, and operation (e.g., CCR surface impoundments contain large volumes of water, MSWLFs typically close each component cell when it reaches its disposal capacity). As a result of these concerns, commenters recommended that EPA extend the deadlines both to commence and complete closure activities. The majority of the these commenters, however, urged EPA not to establish specific deadlines for closure and instead require facilities to close a CCR unit consistent with a closure plan approved by a state, or developed and certified by a qualified professional, such as a professional engineer.

In a subsequent NODA, the Agency solicited additional public comment on several different options to address these concerns. 78 FR at 46944–46. With respect to the deadline to initiate closure, EPA presented several examples of routine and legitimate circumstances in which CCR units would not receive CCR for periods longer than one year, even though the facility intended to continue to use the

unit. For example, EPA discussed circumstances in which the facility alternates between two surface impoundments, only one of which is operational at a time. Once the impoundment has reached capacity, the facility dewateres the unit, and begins to send CCR to the second impoundment. Once the unit is dewatered, the CCR is excavated and disposed in an adjacent landfill. The time to fill these units has varied over the years as demand has fluctuated, but a typical time to fill a unit with CCR is two years, perhaps longer, during which the other unit is “idle,” in that it does not “receive CCR,” but it remains operational.

The Agency also solicited comment on a revised approach to the deadline to initiate closure. The approach entailed establishing a rebuttable presumption that if the CCR unit has not received waste within a particular period of time (e.g., 18–24 months), the CCR unit would be considered inactive and unit closure would be required to begin within a specified time. However, if the facility could substantiate that there was a reasonable likelihood that the CCR unit would again receive CCR in the future and also was able to document certain findings, the owner or operator would not need to immediately commence closure of the CCR unit. In the NODA, EPA discussed several examples of situations that could support a demonstration that immediate closure of the CCR unit was not necessary. One example was if an owner or operator could document that a CCR unit had been dedicated to a temporarily idled coal-fired generating unit and there was a reasonable likelihood that CCRs would be disposed in the CCR unit once the coal-fired generating unit resumed operation. Another situation presented was a CCR unit dedicated to a coal-fired generating unit that was not burning coal at the time (e.g., electricity was being generated with other fuels such as natural gas), but the facility needed the CCR unit following resumption of coal burning. A final example involved normal facility operations that include periods during which the CCR unit does not receive CCR for extended periods (e.g., the alternating use of two CCR surface impoundments discussed above). As part of this approach, the Agency solicited comment on whether to limit the length of time an owner or operator can maintain an idle CCR unit.

With respect to the deadline for completing closure, EPA acknowledged in the NODA that different deadlines, at least for the larger CCR units, were warranted. Information that the Agency has obtained throughout the rulemaking

confirmed commenters' claims that the timeframes originally proposed to complete closure of CCR surface impoundments will be practically infeasible for the larger impoundments. However, the Agency cautioned that any ultimate timeframe provided in the rule that would be practicable for the largest CCR units would be far too long to justify as timeframes for closure of the smaller impoundments. EPA explained that it intended to examine available closure plans for CCR surface impoundments to determine whether there are consistent timeframes or other factors that EPA could adopt as part of the regulations. EPA specifically identified two closure plans of CCR units that were scheduled to close as a possible source of useful information. These plans projected that closure would take multiple years to complete for modestly-sized CCR surface impoundments (*i.e.*, less than 50 acres).

a. Deadlines To Initiate Closure

In response to the NODA, most utility commenters stated that the time to initiate closure should be tied to reasonable triggers that account for the diverse uses of CCR surface impoundments and CCR landfills. In particular, these commenters recommended that closure not be initiated for an idled CCR unit if the CCR unit was expected to receive additional waste in the future, whether CCR or any other waste the unit may be authorized to manage. These commenters also supported the scenarios EPA described in the NODA as examples of legitimate situations that could warrant delaying the immediate closure of a CCR unit. Many of these commenters generally agreed that the rebuttable presumption alternative discussed in the NODA could be an appropriate approach for closure, in particular for CCR units not covered by a state-approved operating plan, provided the regulatory approach would be implemented in a manner that did not restrict other legitimate uses of the CCR unit. Many of these commenters also asserted that a limit on the length of time a CCR unit can remain idle is not practical because the owner or operator will not be able to predict with any degree of certainty how long a CCR unit will be idled. Several of these commenters also urged EPA to specify in the final rule what EPA intended by the phrase “initiation of closure;” that is, that EPA define the activities or actions the owner or operator must take by the deadlines specified in the rule.

A trade organization and other commenters warned that strict restraints on the initiation (and completion) of

closure of CCR units would pre-empt opportunities for reclaiming CCR from these CCR units for beneficial use of CCR. These commenters recommended that the final rule create meaningful incentives for the beneficial use of CCR already in CCR units which will become unavailable to reclamation once a final cover system is put in place. For example, one commenter suggested that an incentive could be deferring deadlines for closure of a CCR unit if an owner or operator reduces its net tonnage by a set amount, such as 10,000 tons per year, if the CCR is beneficially used. EPA also received comments from several states that generally supported the rebuttable presumption concept. One state supported a longer rebuttable presumption time period of three years that could be extended if approved by the state on a case-by-case basis.

After consideration of all of the public comments, the Agency is adopting an approach that largely mirrors the approach outlined in the NODA. Closure of a CCR unit is triggered in one of three ways. The first is upon the known final receipt of waste (CCR or otherwise), or when an owner or operator removes the known final volume of CCR from the CCR unit for the purpose of beneficial use of CCR. Under these scenarios, the final rule requires an owner or operator to commence closure of the CCR unit within 30 days of such known final receipt or known final volume removal, whichever date is later.

The second way closure can be triggered relates to "idled" CCR units. This applies to situations in which the CCR unit has remaining disposal, treatment, or storage capacity, or there has been a temporary pause in the removal activities of CCR from the CCR unit. In these situations, the rule establishes a presumption that the owner or operator must initiate closure of the CCR unit no later than two years after the most recent receipt of CCR or any non-CCR waste stream, or no later than two years after the most recent date that CCR was removed from the CCR unit for the purpose of beneficial use, whichever date is later. The rule, however, provides procedures for an owner or operator of the CCR unit to rebut this presumption and obtain additional time, provided the owner or operator can make the prescribed demonstrations.

The final way closure is triggered is when a CCR unit fails to meet certain of the technical criteria. Specifically, an owner or operator may be compelled to close a CCR unit in the following circumstances: (1) If the CCR unit has been sited inappropriately; *i.e.*, cannot

meet the applicable location criteria; (2) if an unlined CCR surface impoundment is found to contaminate groundwater in excess of a groundwater protection standard; or (3) if a CCR surface impoundment cannot demonstrate the minimum factors of safety regarding structural integrity of the CCR unit. When closure is triggered under these circumstances, the owner or operator must initiate closure of the CCR unit within six months. Each of these is discussed in more detail below.

i. "Known Final Receipt" of CCR

Several commenters suggested that the rule not link the deadlines to initiate closure solely to when a CCR unit ceases to receive CCR. Many of these commenters provided information that CCR units also serve functions other than managing CCR, including the management of other wastes or water treatment. Thus, while there are periods of time that certain CCR units will receive both CCR and non-CCR wastes, there are also other times when the same CCR unit will only receive non-CCR wastes or perform other forms of active waste management in the unit, *e.g.*, specific water treatment functions. EPA agrees that these are legitimate waste management activities, and EPA is aware of no risks that would warrant cessation of such activities simply because the unit is no longer receiving CCR. Therefore, in response to these comments, the final rule no longer requires closure based solely upon the receipt of CCR. Instead, the final rule requires closure to be initiated after the CCR unit ceases to receive any waste or waste stream into the CCR unit. See § 257.102(e)(1) and (e)(2) in the rule.

The Agency also agrees with those commenters that supported delaying the commencement of closure of a CCR unit if substantial quantities of CCR are removed from the CCR unit for the beneficial use of the waste. This could include, for example, removal of CCR from a CCR unit followed by its use as a partial replacement for Portland cement. As discussed in Unit IV.B of this preamble, EPA has identified significant benefits from reducing the disposal volumes of CCR in CCR landfills and CCR surface impoundments, including reduced risks associated with the practice of CCR disposal, benefits from reducing the need to mine and process virgin materials, and energy and greenhouse gas benefits. EPA finds these potential benefits compelling and is therefore revising the closure requirements in the rule to accommodate the removal and beneficial use of CCR. EPA has therefore revised the rule to provide that closure

of an otherwise idled CCR unit is not immediately triggered, as long as the owner or operator is removing substantial quantities of CCR from the unit. However, once removal of CCR for beneficial use is no longer taking place, the rule would require the owner or operator to initiate closure of the CCR unit. See § 257.102(e)(1) and (e)(2) in the rule.

After considering comments received regarding the specific timeframe by which closure must be initiated following known final receipt of wastes, the Agency is finalizing the 30 day timeframe from the proposed rule. Several commenters expressed concern that 30 days is too short because it does not account for the potential that weather or seasonal concerns may interfere or cause substantial delay. The Agency acknowledges that weather or seasonal effects can delay certain activities, but disagrees that the rule provision needs to be revised to account for those. This provision does not require that specific actions or activities must be initiated during this 30-day period. For example, the rule does not require the installation of the final cover system (or the commencement of removal of CCR from the CCR unit) necessarily begin within this 30-day period. Instead, the provision is more flexible; the owner or operator can initiate closure by taking other actions necessary to implement the closure plan that are not weather or seasonal dependent, such as turning off pumps supporting sluice lines or taking any steps necessary to comply with any state or other agency standards that are a prerequisite to initiating closure. Provided the owner or operator has started to take the measures to implement the closure plan that can be feasibly undertaken, the facility will have complied with this requirement.

The 30-day period remains equally appropriate under the wider provision that allows closure to be triggered either by the known final receipt of all wastes in the unit, or upon the known final volume removal of CCR for beneficial use of CCR. There are no facts unique to these circumstances that would necessitate an extension beyond the 30 day timeframe. Furthermore, as the terms "known final receipt" and "known final volume removal" suggest, the owner or operator has made the determination to cease managing waste in the CCR unit, or to cease removing CCR from the CCR unit for beneficial use purposes. This will likely occur in situations where the CCR unit is reaching its disposal capacity (or treatment capacity when the CCR unit is receiving non-CCR waste streams) or the

owner or operator intends to close the CCR unit for other purposes (e.g., the closing of a CCR surface impoundment following conversion to dry handling of CCR). Given that these situations can generally be anticipated and planned for in advance, EPA is not aware of circumstances that would prevent owners or operators from at least commencing closure within this 30-day period. In summary, the owner or operator must commence closure of the CCR unit with 30 days of known final receipt of CCR or any non-CCR waste stream, or within 30 days of known final removal of CCR for beneficial use, whichever date is later.

ii. Temporarily Idled Units

This situation involves CCR units with remaining CCR disposal or storage capacity (or treatment capacity for non-CCR waste streams) that may sit idle for extended periods of time (e.g., potentially years at a time); however, the owner or operator intends to continue to maintain the idled unit to receive CCR or non-CCR waste streams in the future. EPA proposed that these CCR units could remain idle for up to one year, but that closure of the CCR unit would have to be initiated no later than one year after the most recent receipt of CCRs. See 75 FR 35252 (proposed § 257.100(j)). The majority of commenters claimed that one year was too short and would require the premature closure of CCR units that would be needed in the future. In response to these comments and new information documenting examples of legitimate circumstances in which CCR units were idled for more than one year, EPA solicited comment on a revised approach to establish longer timeframes to initiate closure for temporarily idled CCR units. As discussed previously, this approach entailed establishing a rebuttable presumption that if the CCR unit has not received waste within a specified period of time (i.e., 18 months to two years), the CCR unit would be considered inactive and closure of the CCR unit would be required. However, this time could be extended beyond the 18 months or two years if the facility could substantiate certain findings. See 78 FR at 46945.

After considering comments received, the Agency is essentially finalizing the approach presented in the 2013 NODA. Specifically, in situations where the CCR unit has remaining disposal or storage capacity (or treatment capacity for non-CCR wastestreams) and there is a reasonable likelihood that the CCR unit will receive additional CCR or non-CCR waste in the future, the final rule allows the owner or operator to keep the

CCR unit available for use for up to two years. However, if the CCR unit has not received CCR or any non-CCR waste within two years of the last receipt of CCR or any non-CCR waste, whichever date is later, the rule requires closure of the CCR unit unless the owner or operator can document that additional time is necessary to accommodate routine operations and legitimate waste management activities.

The Agency agrees that it is not necessary to require closure of temporarily idled CCR units after one year. Information in the record documents numerous examples of legitimate circumstances in which CCR units were idled for more than one year. In most of the examples provided CCR units are temporarily idled for periods that can last more than one year, but typically use of the CCR units resumes within approximately two years. Based on this information EPA has concluded that a two year timeframe before presumptively requiring closure of a CCR unit would be more consistent with current practice, and is better supported by the available information.

This same information documented that there can be situations in which a CCR unit is idled for longer periods of time (e.g., a coal-fired boiler may be idled for years during which another fossil fuel is burned (e.g., natural gas), and the CCR unit will be needed when the utility returns to coal burning. In order to obtain additional time beyond two years, the owner or operator must document in writing both that the CCR unit has remaining disposal or storage capacity and the facts that support a conclusion that there is a reasonable likelihood that the CCR unit will accept CCR or non-CCR waste in the foreseeable future. The facility would need to substantiate those findings, including the specific reasons the owner or operator believes “that there is a reasonable likelihood that CCR will be disposed in the waste disposal unit.” These findings would need to be certified by the owner or operator of the CCR unit.

The rule identifies examples of specific scenarios that would support a determination that there is a continuing need for the unit to support future waste management activities (e.g., that the CCR will resume receiving CCR or non-CCR waste in the future). These are intended to be illustrative rather than an exclusive list; there may well be additional circumstances in which routine operations or legitimate waste management practices would support the necessary determination. The particular situations identified in the rule generally match those discussed in

the NODA or reflect situations identified in public comments. Specifically, the rule identifies four particular circumstances: (1) Normal plant operations include periods during which the CCR unit does not receive wastes (CCR or non-CCR waste streams). This may include the alternating use between one CCR unit that receives CCR while dewatering or removing CCR from a second unit. (2) The CCR unit is dedicated to a coal-fired boiler unit that is temporarily idled (i.e., CCR is not being generated) and there is a reasonable likelihood that the coal-fired boiler will resume operations in the future. (3) The CCR unit is dedicated to an operating coal-fired boiler (i.e., CCR is being generated); however, no CCR is being placed in the CCR unit because the CCR is being entirely diverted to beneficial uses, but there is a reasonable likelihood that the CCR unit will again be used in the foreseeable future. (4) The CCR unit currently receives only non-CCR waste streams and those non-CCR waste streams are not generated for an extended period of time, but there is a reasonable likelihood that the CCR unit will again receive non-CCR waste streams in the future. As noted, a facility must substantiate these findings; it is not sufficient to merely repeat the words of the regulation and conclude that additional time is warranted.

The final rule allows an owner or operator to obtain additional two-year time extensions for as long as the owner or operator continues to be able to provide a factual basis to justify the need for additional time via a written demonstration. Because these idled units must continue to comply with all applicable technical requirements, including those for groundwater monitoring, corrective action, and structural stability, a fixed or definitive limit on the amount of time that a CCR unit can sit idle is not necessary.

In addition, the Agency agrees that the final rule should better define the actions or activities that constitute “initiation of closure” of a CCR unit. A clear definition will assist in the implementation and understanding of the rule. Commenters suggested a number of actions or activities, any one of which would be sufficient to show that closure of the CCR unit has been initiated. Examples provided by the commenters included the removal of CCR sluice lines; beginning the necessary permitting processes (i.e., submitting a completed permit application); turning off pumps supporting the sluice lines; preparing a bid for contractors; or procuring capping materials such as clay or top soil.

The final rule specifies that closure has been initiated when the owner or operator takes two actions. The first action is that the owner or operator must have permanently ceased placing CCR and non-CCR waste streams in the CCR unit. As suggested by commenters, permanent removal of CCR sluice lines or inactivation of the pumping system supporting the sluicing operation would be evidence that placement of CCR and non-CCR waste streams has ceased. The second action is that the owner or operator must have taken steps to implement the written closure plan required by the rule. This second action would include submitting a completed application for any required state or agency permit or permit modification in order to implement closure of the CCR unit, or taking any steps necessary to comply with any state or other agency standards or regulations that are a prerequisite to initiating or completing the closure of the CCR unit. Once the owner or operator has completed both of these actions, closure of the CCR unit has been initiated for purposes of this rule. See § 257.102(e)(3) in this rule.

iii. Closure for Cause

Finally, the Agency is clarifying that the closure initiation timeframes specified above—the 30 day period for known final receipt or known final volume removal and the 2 year period for temporarily idled CCR units—do not apply to closures initiated for cause. As discussed elsewhere in the preamble, the final rule requires certain CCR surface impoundments and CCR landfills to close. The situations include: Unlined CCR surface impoundments whose groundwater monitoring shows an exceedance of a groundwater protection standard; existing CCR surface impoundments that do not comply with the location criteria; CCR surface impoundments that are not designed and operated to achieve minimum safety factors; and existing CCR landfills that do not comply with the location criteria for unstable areas. In these situations, the final rule specifies that the owner or operator must initiate closure activities within six months of making the relevant determination that the CCR unit must close.

b. Deadlines To Complete Closure

In response to the August 2013 NODA, many utility commenters stated that the time period to complete closure must be sufficiently flexible to account for the inherent uncertainties in predicting a closure schedule. These commenters pointed to potentially innumerable complications and

circumstances beyond the control of the owner or operator that render it nearly impossible to predict with precision when the closure of a CCR unit will be completed. These commenters also believe it is impractical and unrealistic for the rule to subject the closure of CCR units to any type of fixed regulatory structure. They maintained their position from the proposed rule that it would be impossible to properly complete closure of most CCR surface impoundments within 180 days. Their recommendation is to allow closure timeframes to be governed by the a state-approved closure process, which would include the owner or operator developing and submitting a closure plan to the state and mechanisms for the state to verify and enforce compliance with all closure requirements, including the closure plan. Under this approach, the owner or operator's compliance with the requirements of the state-approved closure process (including following the closure plan, completing mitigation, etc.) would represent compliance with this rule's closure requirements. For CCR units not subject to a state-approved closure process, these commenters recommended that the owner or operator should demonstrate compliance with the CCR closure requirements by submitting a closure plan to the state that is certified by an independent professional engineer. In this case, because there is not direct state oversight and administration of the closure process, the timelines in the closure plan could be subject to a modified set of tiered timeframes for completing closure, provided owners or operators could demonstrate that more time is needed to close the unit on a case-by-case basis.¹²² These commenters also opposed any closure approach with firm and inflexible timeframes because no single factor (*e.g.*, the acreage of the CCR unit or the volume of CCR in the unit) is determinative in all instances of how long it will take to complete closure of the CCR unit. Commenters also cautioned that pre-closure closure plans (and the closure schedules contained therein) may not be an actual reflection of the time it will take to close the unit due to unforeseen or variable conditions. Finally, these commenters

¹²² The tiered timeframes for completing closure could be based on the size of the CCR unit (after obtaining necessary state and local approvals): (1) Within 3 years for an impoundment with an area less than 20 acres; (2) Within five years for an impoundment between 20 and 50 acres; (3) Within 8 years for an impoundment between 50 and 75 acres; (4) Within 10 years for an impoundment with an area of 75 acres or more; and (5) Within 180 days for a landfill. Under this approach, the owner or operator could demonstrate the need for additional time to close the CCR unit.

also generally opposed the idea discussed in the NODA of petitioning the Agency for a site-specific rule to vary from a generally applicable deadline.

Many commenters described the numerous factors that could affect timeframes for closure of a CCR unit. Most comments were specific to CCR surface impoundments where closures are typically more complex as compared to CCR landfills due to the presence of water in impoundments. Factors most often cited by the commenters that may affect the time required to close a CCR unit included: (1) The size and volume of CCR in the unit; (2) the geotechnical characteristics of the CCR; (3) the type or design of the surface impoundment (*i.e.*, diked, incised, valley fill, and side hill); (4) the need to coordinate or obtain approvals from state permitting officials; (5) the availability of qualified engineers, contractors, and materials since closing a CCR unit is a specialized activity, especially given that many units may be required to close simultaneously; (6) climate and weather that can affect dewatering operations and the length of a construction season; (7) the time needed to obtain replacement disposal capacity for a closing unit that would ensure ongoing facility operations; and (8) dam safety considerations during closure. Many of commenters identified that the dewatering process (an early necessary step in the closure process) as being a site-specific issue, as the time that will be needed to dewater an impoundment can vary considerably depending on the type of CCR unit, the volume of CCR in unit, and the geotechnical properties of the CCR. Several commenters also cited that closure times for some CCR units will require substantial volumes of fill material to properly grade a closing surface impoundment to facilitate positive drainage from the closed unit. These commenters provided estimates on the volumes of fill material needed and showed that the earthmoving aspect of this step alone can take many years to complete in some cases.

Several state commenters generally supported the tiered closure alternative discussed in the NODA. However, these commenters urged EPA to include provisions in the rule to provide flexibility for closing units to demonstrate the need for additional time on a case-by-case basis.

i. Timeframes for Completing Closure

In the August 2013 NODA the Agency solicited comment on ways to establish categories of timeframes that would adequately account for the various factors that can affect the amount of

time needed to properly close a CCR surface impoundment. One approach discussed in the NODA was called the “tiered approach” that was based on comments received in response to the proposed rule. Under that approach, the final rule would establish fixed timeframes to complete closure that varied depending on the size of the impoundment (*i.e.*, surface area acreage). The Agency stated in the NODA that the concept of a tiered approach was appealing; however, the precise basis for the distinctions (*i.e.*, unit size cutoffs) and timeframes were not clear. EPA further explained its concern that factors other than size (*e.g.*, climate, geography, unit configuration) would also appear to be relevant, and that any timeframes should account for those other factors. EPA encouraged commenters interested in supporting a tiered approach to provide the rationale and data to support any suggested categories of timeframes. 78 FR 46946. Most commenters opposed the tiered approach by itself (*i.e.*, an approach without an accompanying process by which an owner or operator could obtain additional time due to site-specific circumstances) because they felt there simply are too many factors that can affect closure timeframes. These commenters concluded that basing closure timeframes on a subset of factors would not be appropriate. As one commenter noted, a 20 acre impoundment 10 feet deep can likely be dewatered and closed more quickly than a 20 acre impoundment 30 feet deep.

After considering comments and information available on closure timeframes, EPA has concluded that there are insufficient data and information to adopt the kind of tiered approach discussed in the NODA. EPA is convinced that the available information does not support an approach that would establish fixed and definitive timeframes for closure, based on a select subset of factors that distinguish between surface impoundments (*e.g.*, a 50 acre diked impoundment holding 500 acre-feet of CCR with a hydraulic conductivity of 1×10^{-5} centimeters per second located in a state in the southwest with a permitting program would be required to close in four and one-half years, while a 50 acre cross valley impoundment holding 1,500 acre-feet of CCR with a hydraulic conductivity of 1×10^{-6} centimeters per second located in a state in the upper midwest with a permitting program would be required to close in seven years, etc.). While information is available for surface impoundments on certain factors, such

as the size and type of the unit and geographic information, the Agency has little to no data for a number of other key factors. For example, EPA has no information on the geotechnical properties of the CCR that can affect the time needed to dewater a unit, the volumes of clays, soils, and other materials that will be needed for closure, and information on the time needed to obtain state approvals (in accordance with state CCR programs) related to closure of a unit.

In discussing the tiered approach EPA noted that commenters had suggested that the largest CCR surface impoundments (*i.e.*, those having a surface area greater than 75 acres) should be subject to a site-specific deadline to complete closure. In the NODA, the Agency explained that a site-specific deadline may not be practicable unless the rule were to establish a “variance” process as part of the rule. 78 FR 46946. Under a variance approach, EPA would establish a specific deadline (*e.g.*, closure must be completed no later than five years from the date closure activities are initiated), but would allow facilities to petition EPA for a site-specific rule to establish an alternate deadline. In response to the NODA, some commenters expressed interest in such an approach, but other commenters found the approach not practicable since each owner or operator would need to petition the Agency for a site-specific rule. Some commenters believed that a site-specific rule process, which would necessarily involve a notice and comment process, would be an unwieldy process leading to unnecessary delays. The Agency agrees that this is also not a practical alternative to establish timeframes to complete closure.

Recognizing the numerous factors that can affect the amount of time needed to close an impoundment, many commenters suggested EPA not establish any type of fixed regulatory deadline for closure. Instead, these commenters recommended that the rule allow closure timeframes to be governed by a state-approved closure process. Under this process suggested by commenters, an adequate state-approved closure process would include one where the owner or operator developing and submitting a closure plan to the state and mechanisms for the state to verify and enforce compliance with all closure requirements, including the closure plan. Under the commenter’s recommendation, compliance with the requirements of the state-approved closure process would not be compliance with the closure requirements of this rule. As discussed

elsewhere in this preamble, under subtitle D of RCRA, the Agency cannot rely on the existence of a state permitting authority to implement the subtitle D requirements.

Some other commenters suggested EPA not establish any type of fixed regulatory deadline for closure in the rule, and instead rely on the closure plan developed and certified by a professional engineer. The Agency disagrees that this approach would meet the protectiveness standard of RCRA section 4004(a). CCR units present significant risks, and it is critical that facilities complete closure expeditiously—particularly those that are closing because they are structurally unsound or are contaminating groundwater. To be able to determine that the rule will be protective, the final rule must limit the discretion of individual facilities, many of whom may have significant incentives for delay, and avoid the potential for abuse. Moreover, in contrast to corrective action, where EPA was truly unable to establish an outer limit on the necessary timeframes—including even a presumptive outer bound—closures, while complex, do not vary to the same degree as site remediation actions. Consequently, as discussed later in this section, the available data were sufficient to support the establishment of definitive timeframes.

Most commenters, however, were generally supportive of an approach that would establish timeframes for closure, whether in a tiered-like approach (*i.e.*, timeframes for closure based on one or more characteristics of the unit) or under a “rebuttable presumption” approach, so long as the rule would provide the owner or operator a process or procedures to demonstrate the need for additional time. As explained in the NODA, such an approach could be implemented by establishing a presumption that facilities complete closure within a specified timeframe, such as five years, unless the facility could document that closure is not feasible to complete within the presumptive timeframe.

After consideration of all of the public comments, EPA is adopting an approach that takes elements from two of the alternatives discussed in the NODA: The concept of tiered timeframes based primarily on the size of the surface impoundment, and the concept of a rebuttable presumption. The final rule establishes a presumption that the owner or operator must complete the closure of a CCR surface impoundment within five years of initiating closure activities. For CCR landfills the presumption is that the owner or

operator must complete closure within six months of initiating closure activities. The rule, however, provides procedures for an owner or operator to rebut either presumption and obtain additional time, provided the owner or operator can make the prescribed demonstrations. For CCR surface impoundments, the amount of additional time beyond the five years varies based on the size (using surface area acreage of the CCR unit as the surrogate of size) of the unit. For impoundments 40 acres or smaller, the maximum time extension is two years. For impoundments greater than 40 acres, the maximum time extension is five two-year extensions (ten years) and the owner or operator must substantiate the factual circumstances demonstrating the need for each two year extension. For a CCR landfill, the amount of additional time beyond the six months does not vary according to the size of the landfill, rather the maximum time extension is two one-year extensions (two years) for any CCR landfill. The owner or operator must substantiate the factual circumstances demonstrating the need for each one-year extension.

ii. CCR Surface Impoundment Timeframes

To develop these timeframes the Agency began by identifying the period of time in which most surface impoundments could feasibly complete closure. EPA intended this period of time to serve as the basis for the rebuttable presumption of the rule. As EPA recognized in the NODA, a timeframe that would be feasible for the largest units would grant more time than could be justified to complete the closure of smaller units. The closure of CCR units, and particularly the closure of CCR units that are compelled to close because they fail to comply with the rule's requirements (*e.g.*, are structurally unstable or are contaminating groundwater), needs to occur as expeditiously as is feasible. While these units (and particularly the larger CCR surface impoundments) are in the process of closing, they continue to present risks to human health and the environment. On the other hand a presumptive time period that is feasible for a small percentage of units would simply result in a greater number of facilities that would need to obtain time extensions. It is well established that the law cannot compel actions that are physically impossible, "*lex non cogit ad impossibilia*," and it is incumbent on EPA to develop a regulation that does not in essence establish such a standard. The available information shows that CCR surface impoundments can vary in

size by orders of magnitude (*i.e.*, from less than one acre to nearly 1,000 acres). EPA evaluated the information on the size distribution of CCR surface impoundments in its database of survey results from EPA's 2009 Information Request.¹²³ Through this effort, EPA received a substantial amount of factual information from 240 facilities covering 676 surface impoundments, including surface area information on over 650 impoundments. The database of survey responses shows that the median surface impoundment is approximately 14 acres in size, 75 percent of impoundments are 50 acres or smaller, 80 percent of impoundments are 66 acres or smaller, and 90 percent of impoundments are 111 acres or smaller.

Available information on actual and projected timeframes needed to close CCR surface impoundments of varying sizes (using surface area as the surrogate for size) is summarized below. Much of this information came from public comments from utilities. The largest CCR surface impoundment in this data set that has actually completed closure is a 40-acre unit that closed over a period of approximately five years (*i.e.*, the surface impoundment at PPL Corporation's Martins Creek Power Plant).¹²⁴ This facility closed with waste in place, and included installation of a final cover system. According to the facility, this CCR unit ceased receiving wastewater in January 2008, and the closure work began with dewatering the unit and preparing the revised closure plan and permit modification applications. Installation of the final cover, in addition to final soil grading and seeding of the unit was completed in spring 2012. By early 2013, all remaining closure actions were completed and state regulators issued final approvals in July 2013. EPA gave substantial weight to this information because (1) it was a CCR surface impoundment—the units of greatest relevance to the issue at hand; (2) the closure was recently completed, and so would accurately reflect current and available engineering practices; and (3) the facility actually completed closure of the unit. See EPA-HQ-RCRA-2012-0028-0103 and EPA-HQ-RCRA-2012-0028-0113.

As another example, American Electric Power (AEP) provided some

¹²³ More information on EPA's Information Request, including a data base of survey responses, can be accessed at <http://www.epa.gov/epawaste/nonhaz/industrial/special/fossil/surveys/index.htm>.

¹²⁴ EPA included information on the planned closure of this CCR surface impoundment in the NODA. 78 FR 46945. The closure plan estimated that the closure process would take approximately three years to complete.

information on the recent closure of a CCR surface impoundment in 2013. This 21-acre unit had been inactive for several years and was closed over the course of two construction seasons. The impoundment was closed by leaving CCR in place and installing a composite cap, in addition to the installation of hydraulic appurtenances to control the design storm events. See EPA-HQ-RCRA-2012-0028-0067.

Cleco Corporation provided planned closure timeframes contained in existing permits for its CCR surface impoundments. For three of its CCR surface impoundments, which in aggregate totaled 66 acres, Cleco Corporation estimated that it could take approximately one year to complete closure, which would be accomplished by leaving CCR in place and installing a final cover system. Cleco Corporation also estimated that it would take approximately nine months to complete closure of two additional CCR surface impoundments, with an aggregate acreage of 5.5 acres, by removing CCR from the CCR units, (*i.e.*, clean closure of the units). Information on the size of any of the five CCR units was not provided, which complicates the Agency's ability to assess the closure of any of the individual CCR units. In addition, the time period appears to begin when dewatering operations are initiated and the comments do not discuss how much time may be needed to obtain any necessary approvals from the state prior to commencing closure activities. See EPA-HQ-RCRA-2012-0028-0106.

Similarly, Xcel Energy stated in its comments to the NODA that it closed four CCR surface impoundments at its Northern States Power of Minnesota's Minnesota Valley Plant by removing all of their contents. See EPA-HQ-RCRA-2012-0028-0079. While the commenter did not provide any information on the time needed to close the four CCR units, other information available to the Agency indicated that closure took place sometime after May 2009 and was completed prior to September 2013. Based on information obtained from Xcel Energy in response to EPA's request for information from May 2009, the four CCR units at the Minnesota Valley Plant each have a surface area less than one acre. In addition, the response to the information request showed that one CCR surface impoundment was nearly full of ash, a second was more than half full, and the final two CCR units were less than one quarter full.

In the August 2013 NODA, the Agency solicited comment on a draft plan to close two CCR surface

impoundments at Santee Cooper's Grainger Generating Station in South Carolina. 78 FR 46945. The plan estimated that closure of the two CCR units, approximately 42 and 39 acres in surface area, could be accomplished during a three year period. This original estimate was based on closing the unit with waste in place and installing a final cover. However, Santee Cooper has since amended its draft plan and is now pursuing closure by removal of CCR and transport off-site for either disposal or beneficial use.¹²⁵ The revised draft envisions the complete removal of CCR from both CCR units and also one foot of underlying soil beneath the units. In total, the draft closure plan estimates that approximately 1.3 million cubic yards of CCR and underlying soil will be removed from both units—approximately 900,000 cubic yards from one unit and 400,000 cubic yards from the second—over a period of six to ten years.

The Florida Electric Power Coordinating Group (FCG) claimed that, based on FGC member experience, closing a 30 acre CCR surface impoundment is expected to take approximately two years to complete, but provided no additional information or details. See EPA-HQ-RCRA-2012-0028-0064.

The Utility Solid Waste Activities Group (USWAG) provided another projected closure schedule for a 20 acre CCR surface impoundment operated by Luminant. This facility was in the process of closing the unit when the comments were prepared. The schedule estimated that completion of all closure activities, would take approximately 45 months (3 years, 9 months) to complete. However, the commenter also states that, when complete, the "full closure period will take approximately 84 months (seven years) due to the unique circumstances of that closure." No other information was provided on this closure to explain the "unique circumstances" that warrant such an extended period of time. See EPA-HQ-RCRA-2012-0028-0113.

There is other information in these data that indicates that larger impoundments may be able to complete closure within approximately the same timeframes as smaller units. For example, the data included the projected closure of a 100-acre CCR surface impoundment over a four and one-half year period, which seems to indicate that larger units may be able to close in approximately the same period

of time. However, the Agency gave substantially less weight to this information for a number of reasons. Most critically, this information merely demonstrated projected timeframes for CCR surface impoundments, not actual timeframes that had been achieved. In addition, for some of these data, it was unclear whether the circumstances that allowed for completion within this timeframe were generally applicable to the majority of CCR surface impoundments. In one instance, the commenter noted that the time to complete closure was shorter than would normally be expected because the impoundment was being closed well before it reached full capacity and because water in the impoundment could be pumped into an adjacent impoundment. The commenter also noted that the impoundment had been built with a leachate collection system to facilitate dewatering at closure. See EPA-HQ-RCRA-2012-0028-0113.

Moreover, the majority of commenters claimed that it would take substantially longer than five years to close the largest impoundments. For example, USWAG stated that one of its members obtained "approval for a closure plan for a 343-acre surface impoundment that provided for a twelve-year closure period to ensure adequate time to complete dewatering of the impoundment, assure the stability of the dewatered CCRs, and uniformly construct the slope of the final cover materials." No other information was provided on this closure example. See EPA-HQ-RCRA-2009-0640-10483. USWAG also provided information on the closure of the CCR surface impoundment at First Energy's Little Blue Run Disposal Area. This 950 acre surface impoundment, which is the largest CCR surface impoundment in the country, has a projected closure period of 15 years.

Similarly, to illustrate the time required simply for earthmoving operations to close a large CCR surface impoundment (in their example, 350 acres), Duke Energy Corporation estimated that the time needed in the schedule to deliver and place the necessary volume of materials for construction of the final cover and the sub-base to the cover system could take between nine and 12 years. This estimate is based on the need for approximately 10 to 11 million cubic yards of fill to construct and shape the sub-base of the final cover and the cover system itself that would require nearly

500,000 truckloads to deliver. See EPA-HQ-RCRA-2012-0028-0095.¹²⁶

Collectively, this information formed the basis for the five year presumptive default. As noted the median size of CCR surface impoundments is approximately 14 acres, and 75 percent of impoundments are 50 acres or smaller. The information presented by the utilities documents that impoundments as large as 66 acres under normal circumstances can close within two to three years. EPA therefore expects that most, if not all, units should be able to complete closure within five years. For all but the very largest units, this timeframe would even accommodate potential delays caused by weather or any other unpredictable variables. This is clearly demonstrated by the examples presented by public comments, and by the recent example of the 40-acre CCR surface impoundment in Martins Creek that closed within five years.

EPA also notes that five years is the timeframe Congress mandated for the completion of open dumps to close or upgrade. While the closure times apply generally to all units—both those whose closure is mandated by this final rule and those that close because the facility decides to do so—the statutory directive provides further support for EPA's decision.

But as many commenters stated, initial estimates can and often do vary from actual closure times due to unforeseen or variable conditions. EPA acknowledges that a host of variables can, and frequently do, delay closure activities, such that the initial time estimates to complete closure of the unit are ultimately exceeded. For example, the 40 acre impoundment at Martins Creek Power Plant discussed above was initially scheduled in its closure plan to be completed within three years; however, closure ultimately took five years to complete. The additional two

¹²⁶ EPA also received information from Consumers Energy Company on the closure of three former fly ash surface impoundments at the JR Whiting plant. These surface impoundments (combined) totaled approximately 52 acres and are scheduled to be closed with a final cover over an approximately 12-year period. The commenter claimed that the extended time for closure "was necessary to allow dewatering and the filling of numerous voids, but principally to allow the generation of fly ash to allow the placement of structurally placed, low permeability ash to provide minimal required slopes for closure and to serve as the select layer for the flexible membrane liner." See EPA-HQ-RCRA-2012-0028-0068. Information on the individual size of any of the three CCR units was not provided in the comments, which complicates any assessment of the time needed to complete closure of any single CCR unit. Because the facility appears to be continuing to use the unit to actively manage waste, EPA does not consider this to be representative of a typical closure process.

¹²⁵ "Amended Closure Plan Wastewater Ash Ponds, Grainger Generating Station, Conway, South Carolina," January 2014.

years was due to the need to obtain approval of a modified closure plan from the state, as well as modifications to three permits, in addition to obtaining other local planning approvals. Further time was also needed to accommodate the public notice and comment processes for several of the permits and approvals.

EPA recognizes that there are a number of unpredictable or variable conditions that can affect the time needed to close a CCR unit and that those conditions are not within the control of the owner or operator. For example, some states require review and approval of a closure plan prior to initiating of closure activities. See, for example, 25 Pa. Code sections 288.292(b) and 289.311(b) for CCR landfills and CCR surface impoundments, respectively. Another commenter noted that in Illinois, permits from several different authorities may need to be obtained to commence closure, including the Illinois Department of Natural Resources, the U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Services.

Climate and weather can also impact the time needed to complete closure. For example, an unusually wet or short construction season can result in schedule delays; one commenter noted that in certain regions of the Midwest, it is possible for as much as 40 inches of rain to fall in a given season.

To account for these conditions, a substantial majority of commenters requested that the final rule include the potential for time extensions, and several specifically referenced the need for a “force majeure” provision. One commenter also recommended that a “force majeure” clause specifically include delays caused by court order (*i.e.*, appeals of permits issued by state agencies causing judgments in court). Another commenter provided an example of a “force majeure” provision that could serve as a model:

An extension shall be granted for any scheduled activity delayed by an event of force majeure which shall mean any event arising from causes beyond the control of the owner that causes a delay in or prevents the performance of any of the conditions under this rule including but not limited to: acts of God, fire, war, insurrection, civil disturbance, explosion; adverse weather conditions that could not be reasonably anticipated causing unusual delay in transportation and/or field work activities; restraint by court order or order of public authority; inability to obtain, after exercise of reasonable diligence and timely submittal of all applicable applications, any necessary authorizations, approvals, permits, or licenses due to action or inaction of any governmental agency or

authority; and delays caused by compliance with applicable statutes or regulations governing contracting, procurement or acquisition procedures, despite the exercise of reasonable diligence by representatives of the owner.

Events which are not force majeure include by example, but are not limited to, unanticipated or increased costs of performance, changed economic circumstances, normal precipitation events, or failure by the owner to exercise due diligence in obtaining governmental permits or performing any other requirement of this rule or any procedure necessary to provide performance pursuant to the provisions of this rule.

EPA agrees that the rule should include procedures to obtain extensions of time to complete closure of the unit, based on the complexity of the activity. As previously noted, the law, including a regulation, cannot compel the impossible. However, because the record demonstrates that most units, even the larger units, can close within that five year timeframe, the rule establishes a high threshold to obtain additional time. To account for those instances of true physical impossibility, the rule limits extensions to circumstances in which the owner or operator can demonstrate that the additional time is needed due to factors that are truly beyond the facility’s control—*i.e.*, could fairly be characterized as an example of “force majeure.” To obtain additional time, the owner or operator of the CCR unit must document in writing the exact reasons why additional time is needed. The regulation specifies that such reasons could include: (1) Complications stemming from the climate and weather, such as unusual amounts of precipitation or a significantly shortened construction season; (2) the time required to dewater a surface impoundment due to the volume of CCR contained in the CCR unit or the geotechnical characteristics of the CCR in the unit; (3) the geology and terrain surrounding the CCR unit will affect the amount of material needed to close the CCR unit; or (4) the time required or delays caused by the need to obtain State permits and/or to comply with other State requirements. These findings would need to be certified by the owner or operator of the unit, as well as by a qualified professional engineer.

The final rule limits the amount of time that closure can be extended based on the size of the CCR unit. Specifically, the rule allows CCR surface impoundments 40 acres or smaller a time extension of up to two years, while CCR surface impoundments larger than 40 acres can obtain up to five two-year extensions. The 40 acre size

demarcation is based on the available information showing that surface impoundments of 40 acres or smaller routinely have either completed closure or are projected to be able to complete closure within a timeframe shorter than five years. EPA expects that facilities will account for all potential delays that can reasonably be foreseen in planning their closure activities, and that this is feasible within this five year timeframe. Consequently the final rule restricts facilities with units of this size to a single extension to account for truly exception circumstances (*e.g.*, Acts of God).

The Agency also recognizes that there is increased uncertainty for CCR surface impoundments larger than 40 acres. First, while available information documents that some CCR surface impoundments larger than 40 acres can be closed within this same five year period, the Agency has other information indicating that closure of units larger than 40 acres can be expected to take much longer than five years. For example, the largest surface impoundment in the country is approximately 950 acres and is scheduled to cease receiving CCR by December 31, 2016 and commence closure in 2017. The facility’s projected closure period is 15 years. However, EPA currently has no data (anecdotal or otherwise) on the actual timeframes in which a surface impoundment of that size has completed closure. Given that closure for the largest of surface impoundments could reasonably be expected to take more than five years to complete, the Agency has concluded that surface impoundments larger than 40 acres need to be provided with the possibility of additional time extensions beyond the two years provided to impoundments less than 40 acres. Based on available information, in particular the current estimates of the time needed to close the largest unit in the country, the rule authorizes a facility to obtain a maximum of five time extensions, totaling as much as ten years in two year increments to close a CCR surface impoundment greater than 40 acres. However, the owner or operator must substantiate the factual circumstances demonstrating the need for each two-year extension.

Several commenters also urged EPA to specify in the final rule what EPA intended by the phrase “completion of closure;” and to define the activities or actions the owner or operator must complete to satisfy the closure requirements. For purposes of this rule, closure of a CCR unit is complete when the unit meets all of the requirements of this rule and the owner or operator

obtains certification from a qualified professional engineer verifying that closure has indeed been completed, consistent with all of the performance standards in the rule. While EPA recognizes that under some state programs closure is not considered complete until the owner or operator receives certification from the state, this is not a prerequisite to completion of closure under these federal rules.

iii. Closure Timeframes for CCR Landfills

Similar to the approach for CCR surface impoundments, EPA recognizes that there can be unforeseen and extraordinary circumstances that warrant additional time to close a CCR landfill. Accordingly, the rule adopts procedures analogous to those for CCR surface impoundments that allow the owner or operator to obtain additional time to complete the closure of a CCR landfill, provided the owner or operator can make the prescribed demonstrations. However, the amount of additional time the facility can obtain beyond the presumptive six month timeframe does not depend on the size of the landfill; rather the maximum time extension is two one-year extensions (two years) for any CCR landfill. As with the procedures for CCR surface impoundments, the owner or operator must substantiate the factual circumstances demonstrating the need for each one-year extension.

EPA developed this timeframe based on its review of the available information in the record regarding the timeframes for completing the closure of CCR landfills, some of which is summarized below. Additional information may also be found in the comment response document.

In response to the August 2013 NODA, Nebraska Public Power District (NPPD) provided information documenting that it completed closure of a 10 acre CCR landfill within 180 days after the final volume of fly ash and bottom ash was placed in the CCR landfill. Closure was accomplished by leaving CCR in place and installing a final cover system. NPPD's comments do not indicate what year closure of this CCR landfill was completed. See EPA-HQ-RCRA-2012-0028-0076.

The Florida Electric Power Coordinating Group (FCG) stated in its comments that FCG member experience with CCR landfill closure has "demonstrated the need for a period of time greater than 180 days to complete closure activities." However, the commenter did not provide any information indicating how long such closures actually took, nor any

information to substantiate their claim. See EPA-HQ-RCRA-2012-0028-0064.

Overall, the closure of CCR landfills is less complex than the closure of CCR surface impoundments. Portions of the CCR landfills that reach final grade can be closed as other areas of the CCR landfill continue to receive CCR, which is typically not possible at CCR surface impoundments. Nor does the owner or operator need to dewater the unit, which appears to be the aspect of closure most likely to be a source of unanticipated circumstances. Finally, there is substantially less uncertainty with respect to the timeframes to complete the closure of CCR landfills, which are not all that different (in this respect) than landfills containing other forms of solid or hazardous waste. EPA therefore has greater confidence that a fixed period of two years will be adequate to account for the vast majority of circumstances.

c. Alternative Closure Requirements

The Agency is finalizing alternative closure requirements in two narrow circumstances for a CCR landfill or CCR surface impoundment that would otherwise have to cease receiving CCR and close, consistent with the requirements of § 257.101(a), (b)(1), or (d). The first is where the owner or operator can certify that CCR must continue to be managed in that CCR unit due to the absence of both on-site and off-site alternative disposal capacity. § 257.103(a). The second is where the owner or operator of a facility certifies that the facility will cease operation of the coal-fired boilers no later than the dates specified in the rule, but lacks alternative disposal capacity in the interim. § 257.103(b). Under either of these alternatives, CCR units may continue to receive CCR under the specified conditions explained below. In addition, under either alternative, the owner or operator must continue to comply with all other requirements of the rule, including the requirement to conduct any necessary corrective action.

1. No alternative CCR disposal capacity (§ 257.103(a)).

The Agency recognizes that the circumstance may arise where a facility's only disposal capacity, both on-site and off-site, is in a CCR unit that has triggered the closure requirements in § 257.101(a), (b)(1), or (d). As a result, the facility may be faced with either violating the closure requirements in § 257.101 by continuing to place CCR in a unit that is required to close, or having to cease generating power at that facility because there is no place in which to dispose of the resulting waste. For example, while it is possible to

transport dry ash off-site to alternate disposal facility that simply is not feasible for wet-generated CCR. Nor can facilities immediately convert to dry handling systems. As noted previously, the law cannot compel actions that are physically impossible, and it is incumbent on EPA to develop a regulation that does not in essence establish such a standard.

Should a facility choose to comply with the regulation and stop generating power, there would be significant risks to human health that would arise if a community would be left without power for an extended period of time. As information in the record demonstrates, obtaining alternative capacity can sometimes require a substantial amount of time (e.g., if the facility needs to construct alternative capacity, including potentially the need to locate an alternative site or purchase additional property). EPA recognizes that there are also significant risks to human health and the environment, as demonstrated throughout this preamble, from a leaking or improperly sited CCR unit, and that these risks justify requiring those units to either retrofit to meet the federal criteria established in the final rule or close. EPA also acknowledges that in the interim period while the owner or operator seeks to obtain additional capacity, the risks associated with the continued use of these units will be significant. However, the Agency believes that the risks to the wider community from the disruption of power over the short-term outweigh the risks associated with the increased groundwater contamination from continued use of these units. This conclusion is further buttressed by the fact that during this interim period the risks associated with allowing these units to continue to receive CCR are mitigated by all of the other requirements of the rule with which the facility must continue to comply, including the requirements to continue groundwater monitoring and corrective action.

Under § 257.103(a)(1), a CCR unit that would otherwise be required to cease receiving CCR under § 257.101(a), (b)(1), or (d), may continue to receive CCR provided the owner or operator certifies that the CCR generated at that facility must continue to be managed in that unit due to the absence of alternative disposal capacity both on-site and off-site. The rule also requires the owner or operator to document this claim, and the claim must be based on the real absence of an alternative and not justified based on the costs or inconvenience of alternative disposal capacity. § 257.103(a)(1)(i). The owner

or operator must also remain in compliance with all other requirements of this rule, including the requirement to take any necessary corrective action. § 257.103(a)(1)(ii). Because this alternative is only available as long as the absence of disposal capacity exists, the owner or operator must document its efforts to obtain additional capacity. If any additional capacity is identified, the owner or operator must arrange to use it as soon as is feasible. § 257.103(a)(1)(iii). The owner or operator is also required to prepare an annual progress report documenting the continued absence of disposal capacity and must also document the progress made toward developing alternative capacity. § 257.103(a)(1)(iv).

Once alternative disposal capacity is available, the CCR unit must cease receiving CCR and must initiate closure following the timeframes in § 257.102(e) and (f). Finally, if the owner or operator has not identified alternative capacity within five years after the initial certification the CCR unit subject to this section must cease receiving CCR and must initiate closure following the timeframes in § 257.102(e) and (f). As discussed elsewhere in this preamble, several commenters provided information to document the length of time needed to obtain additional capacity. Based on this information, the five year timeframe provided for under this alternative is expected to provide sufficient time to obtain alternative disposal capacity and to avoid the consequences of a forced immediate closure of a power plant.

2. Permanent cessation of a coal-fired boiler by a date certain. (§ 257.103(b)).

Under this provision, the Agency addresses the circumstance where a facility's only disposal capacity, both on-site and off-site, is in a CCR unit that has triggered the closure requirements in § 257.101(a), (b)(1), or (d), but the owner or operator of coal-fired power plant has decided to permanently cease operation of that plant within one of two timeframes specified in the regulation. For the same reasons discussed immediately above, EPA has concluded that the provisions of § 257.103(b) represent the most reasonable balance between the competing risks.

Additionally, EPA anticipates that some owners or operators will decide to permanently cease operation of a coal-fired power plant in response to the combined effects of new and/or existing statutory or regulatory requirements promulgated under the Clean Air Act and under the Clean Water Act (e.g. the proposed Effluent Limitations Guidelines and Standards for the Steam

Electric Power Generating Point Source Category. See 78 FR 34442, in combination with market dynamics. As discussed earlier in this preamble, RCRA section 1006(b) directs EPA to integrate the provisions of RCRA for purposes of administration and enforcement and to avoid duplication, to the maximum extent practicable, with the appropriate provisions of other EPA statutes, including the CAA and the CWA. As noted earlier, section 1006(b) conditions EPA's authority to reduce or eliminate RCRA requirements on the Agency's ability to demonstrate that the integration meets RCRA's protectiveness mandate (42 U.S.C. 6005(b)(1)). See *Chemical Waste Management v. EPA*, 976 F.2d 2, 23, 25 (D.C. Cir. 1992). The provisions of § 257.103(b) are fully consistent with the direction in section 1006(b) to account for the provisions of other EPA statutes which may lead an owner or operator to close a coal-fired power plant.

EPA has also concluded that the provisions of § 257.103(b) meet RCRA's protectiveness mandate. As stated above, EPA recognizes that there are long-term risks to human health and the environment, as demonstrated throughout this preamble, from a leaking CCR unit and those risks justify requiring those units to either meet the federal criteria established in this rule or close. However, the risks associated with allowing these units to continue to receive CCR are mitigated by the requirement that the facility must comply with all other requirements of the rule, including initiating groundwater monitoring and corrective action where necessary. And a critical factor is that facilities that choose to rely on this alternative will be required to *complete* closure of their disposal unit in an expedited timeframe. Thus, the risks from these units will be fully addressed sooner. Consequently, while over the short term the risks will be higher, overall, the risks will be at least equivalent to, or potentially lower than if the CCR unit had closed in accordance with the normal closure timeframes.

Under § 257.103(b)(1), a CCR unit that would otherwise be required to cease receiving CCR under § 257.101(a), (b)(1), or (d), may continue to receive CCR provided the owner or operator of the facility certifies that the facility will cease operation of the coal-fired boilers within the timeframes specified in paragraphs (b)(2) through (b)(4) and that the CCR generated at that facility (before the plant ceases to operate) must continue to be managed in that unit due to the absence of alternative disposal capacity both on-site and off-site. The

rule also requires the owner or operator to document the facts that support this claim. The regulation specifies that the claim must be based on the real absence of alternative disposal capacity, and not justified based on the costs or inconvenience of alternative disposal capacity. § 257.103(b)(1)(i). The owner or operator must also remain in compliance with all other requirements of this rule, including the requirement to take any necessary corrective action. § 257.103(b)(1)(ii). The owner or operator is also required to prepare an annual progress report documenting the continued absence of disposal capacity and must also document the progress made toward the closing of the coal-fired boiler. § 257.103(b)(1)(iii).

Under § 257.103(b)(1), the owner or operator does not need to demonstrate any efforts to develop alternative capacity because of the impending closure of the power plant itself.

Consistent with the general timeframes provided for the closure of CCR surface impoundments, EPA has established different timeframes based on the size of the CCR unit. Under § 257.103(b)(2), where the disposal unit is a CCR surface impoundment 40 acres or smaller in size, the coal-fired boiler must cease operation and the disposal unit must have completed closure within 8.5 years of the publication date of the rule. Where the disposal unit is a CCR surface impoundment larger than 40 acres in size, the coal-fired boiler must cease operation and the disposal unit must have completed closure within 13.5 years of the publication date of the rule. § 257.103(b)(3). Finally, under § 257.103(b)(4), where the disposal unit is a CCR landfill, the coal-fired boiler must cease operation and the disposal unit must have completed closure within 6 years of the publication date of the rule. These timeframes were selected to ensure that closure of these units will be completed in a measurably shorter timeframe, and that overall the risks will be lower, or at least equivalent to, the level of risk that would be achieved under the rule's "standard" closure provisions.

5. Notation on the Deed to Property

The proposed rule would have required, following closure of the CCR unit, the owner or operator to record a notation on the deed or some other instrument normally examined during a title search. This notation would notify any potential purchaser in perpetuity that the property has been used as a CCR landfill or CCR surface impoundment and that use of the land is restricted under the rule's post-closure care provisions. After the

notation was completed, the proposed rule would have required the owner or operator to notify the state that the notation has been recorded and a copy has been placed in the facility's operating record and on its publicly accessible internet site. In addition, the Agency solicited public comment on adding a provision to the rule to allow removal of the deed notation once all CCR are removed from the CCR unit, and notification is provided to the state of this action. The EPA solicited comment on this potential approach as a way to create a further incentive for clean closure of the facility. 75 FR at 35208–09. The proposal further encouraged commenters who are interested in supporting such an option to suggest alternatives to state oversight to provide for facility accountability.

EPA received few public comments on the proposed requirement to record a deed notation to the property (or some other instrument that is normally examined during title search). One commenter provided general support for the proposed requirement to record a deed notation to the property. Another commenter urged EPA to ensure that any deed notation requirements should not interfere or conflict with existing state property laws that provide for environmental covenants.

EPA did receive several comments in response to the Agency's solicitation of comment on adding a provision to the rule to allow removal of the deed notation when all CCR are removed from the facility, and notification is provided to the state of this action. One commenter supported the addition of this provision, stating that the licensure requirements of the Professional Engineer provide an assurance of integrity because the Professional Engineer would be required to verify that closure has been completed in accordance with the closure plan. This commenter also stated that it would be sufficient to allow removal of a deed notation upon an application to the state agency supported by a declaration of a licensed professional, subject to state agency review and approval. Another commenter supported providing the incentive for clean closure and allowing the facility to demonstrate the "cleanliness of the closure." The commenter also recommended that the information provided by the facility should be followed by a review from an independent third party with knowledge of the industry and associated environmental issues.

After considering comments, the final rule requires an owner or operator to record a notation on the deed or some other instrument normally examined

during a title search. This notation notifies any potential purchaser in perpetuity that the property has been used as a CCR landfill or CCR surface impoundment and that use of the land is restricted under the rule's post-closure care provisions. See § 257.102(i). In response to the commenter that urged EPA to ensure that any deed notation requirements should not interfere or conflict with existing state property laws, the Agency has no information that the proposed requirement would create such a conflict. In addition, the commenter did not provide any information or suggest that EPA's proposed approach would actually interfere or conflict with existing state property laws. Therefore, the Agency is finalizing the deed notation requirement as proposed.

In addition, regarding the Agency's solicitation of comment on adding a provision to the rule to allow removal of the deed notation when all CCR are removed from the facility, as discussed in Unit VI.M.2 of this preamble, the final rule adopts the proposal to allow the owner or operator to remove the deed notation required under § 257.102(i)(4), upon certification that clean closure has been completed. The rationale for this decision is discussed in that unit of the preamble.

6. Notification of Intent To Close and Certification of Closure Completion

The Agency proposed to require owners or operators to notify the state that a notice of intent to close a CCR unit has been placed in the facility's operating record and on the publicly accessible internet site. This notification had to be completed prior to beginning closure of the CCR unit. Following closure of a CCR unit, the proposed rule would also have required the owner or operator to obtain a certification from an independent registered professional engineer verifying that closure has been completed in accordance with the written closure plan. As proposed, this certification would be placed in the facility's operating record and on the publicly accessible Internet site.

The Agency received no public comments on the proposed requirements to develop a notification of intent to close or the certification of completion of closure. Therefore, the Agency is finalizing these requirements as proposed. See § 257.102(g) and (h).

7. Post-Closure Care Plan

The Agency proposed to require that the owners or operators of CCR landfills and CCR surface impoundments prepare a written post-closure care plan describing how the CCR unit would be

maintained after closure. See proposed § 257.101(c). The proposal also identified the minimum information necessary to include in the post-closure care plan. This information included: (1) A description of the monitoring and maintenance activities for the CCR unit and the frequency at which these activities would be performed; (2) the name, address, and telephone number of the person or office to contact about the facility during the post-closure care period; and (3) a description of the planned uses of the property during the post-closure care period.

The proposed rule further provided that the post-closure use of the property shall not disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the post-closure monitoring systems unless necessary to comply with the requirements of the rule. The proposal would have allowed a disturbance if the owner or operator of the CCR unit demonstrated that disturbance of the final cover, liner, or other component of the containment system, including any removal of CCR, would not increase the potential threat to human health or the environment. A professional engineer would have been required to certify such a demonstration.

The Agency received no significant comments on the proposed post-closure care requirements. The Agency's responses to these comments are addressed in the closure comment response document, which is available in the rulemaking docket. Therefore, the Agency is finalizing these requirements substantially as proposed. See § 257.102(g) and (h).

8. Post-Closure Care Activities

Following closure of a CCR landfill or CCR surface impoundment, EPA proposed that the owner or operator would be required to conduct post-closure care of the closed unit. At a minimum, the proposal would have required the owner or operator to conduct at least the following: (1) Maintain the integrity and effectiveness of any final cover, including making repairs to the final cover to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover; (2) maintain the integrity and effectiveness of the leachate collection and removal system and operating the leachate collection and removal system in accordance with applicable requirements under the design criteria for such systems; and (3) maintain the groundwater monitoring system in

accordance with applicable requirements under the groundwater monitoring and corrective action rule provisions.

EPA received few public comments on the proposed activities to conduct during the post-closure care period. These commenters were supportive of the activities and specifically urged the rule to require the monitoring of groundwater throughout the post-closure care period. The Agency received no comments opposing the proposed post-closure care activities. Therefore, EPA is finalizing the same post-closure care activities in this rule. See § 257.104(b). In addition, consistent with the proposal, the rule clarifies that certain CCR units are not subject to these post-closure care activities. Specifically, owners or operators that elect to close a CCR unit by removing CCR (*i.e.*, clean close the CCR unit) are not subject to any post-closure care requirements. See § 257.104(a)(2) and Unit M.2 of this preamble. In addition, owners or operators of inactive CCR surface impoundments that elect to complete closure of the unit within 30 months of the rule's effective date are not subject to any post-closure care requirements. See § 257.104(a)(3).

9. Length of Post-Closure Care Period

The Agency proposed that the owner or operator of a CCR unit conduct post-closure care for 30 years. EPA also proposed to allow utilities to conduct post-closure care for a decreased length of time if the owner or operator demonstrates that the reduced period is sufficient to protect human health and the environment. The owner or operator would have been required to have this demonstration certified by a professional engineer, in addition to complying with all of the notification and posting requirements under the proposed rule. The proposed rule would also have allowed an increase in the post-closure care period if the owner or operator of the CCR unit determined that it is necessary to protect human health and the environment. EPA also recognized in the proposed rule that state oversight can be critical to ensure that post-closure care is conducted for the length of time necessary to protect human health and the environment; however the Agency also recognized that there is no set length of time for post-closure care that will be appropriate for all possible sites, and all possible conditions. Therefore, EPA solicited comment on alternative methods to account for different conditions, yet still provide methods of oversight to assure facility accountability.

Some commenters supported the proposed approach because it provided flexibility to increase or decrease the post-closure care period of 30 years. EPA also received comments from a number of states documenting the current state requirements; some states require a post-closure care period of less than 30 years, some require 30 years, and one state currently requires 40 years for CCR units. Other commenters opposed the shortening of the 30-year period without state involvement and approval.

After considering public comments, and in a departure from the proposed rule, the Agency is requiring that post-closure care be conducted for a minimum of 30 years. EPA is making this change due to the lack of guaranteed state oversight for this rule. The Agency has concluded that providing the owner or operator the flexibility to shorten the post-closure care period is no longer appropriate, particularly given the flexibility being provided for the selection of a final cover system or alternative final cover system. As discussed in Unit M.3 above, the information available to the Agency supports the need to proceed cautiously. By not allowing the post-closure care period to be shortened, EPA better ensures that the final cover system will be properly maintained. In addition, a mandatory 30 year period ensures that if problems do arise with respect to a final cover system, the groundwater monitoring and corrective action provisions of the rule will detect and address any releases from the CCR unit, at least during the post-closure care period.

10. Notification of Completion of Post-Closure Care Period

The Agency proposed to require owners or operators of CCR units to notify the state that a notice of completion of the post-closure care period has been placed in the facility's operating record and on the publicly accessible Internet site. The proposed approach would have required the owner or operator to obtain a certification from an independent registered professional engineer verifying that post-closure care has been completed in accordance with the written post-closure care plan.

The Agency received no public comments on the proposed requirement to develop a notification of completion of the post-closure care period. Therefore, the Agency is finalizing these requirements as proposed. See § 257.104(e).

N. Recordkeeping, Notification and Posting of Information to the Internet

In response to EPA's lack of authority to require a state permit program or to oversee state programs, EPA has sought to enhance the protectiveness of the regulatory requirements by providing for state and public notifications of the third party certifications, as well as requiring a robust set of other information that documents the decisions made or actions taken to comply with the technical requirements of the rule. Consistent with the proposed rule, owners or operators of CCR units are required to document how the various provisions of the rule have been met by placing information (*e.g.*, plans, records, notifications, reports) in the operating record and providing notification of these actions to the State Director/or appropriate Tribal authority. The owner or operator is also required to establish and maintain a publicly accessible Internet site that posts documentation that has, in many instances, also been entered into the operating record. The owner or operator is required to maintain a copy of the current Emergency Action Plan, the current fugitive dust control plan, and the current written closure plan as long as the facility remains active. EPA believes that the establishment and maintenance of this information in both the operating record and on a publicly accessible Internet site is appropriate so as to allow states and citizens access to all of the information necessary to show that the rule has been implemented in accordance with the regulatory requirements.

With regard to the specific recordkeeping and reporting requirements outlined in the proposal, the Agency received very little comment. Commenters were primarily concerned not with the specific recordkeeping requirements but rather how the recordkeeping requirements aligned with the overall approach of the RCRA subtitle D regulatory scheme. These comments and the Agency's responses are discussed in Unit V of this preamble.

The combined mechanisms of recordkeeping, notifications, and maintaining a publicly accessible Internet site will serve to provide interested parties with the information necessary to determine whether the owner or operator is implementing and is operating in accordance with the requirements of the rule. As stated in the proposal and reiterated here, EPA believes that it cannot conclude that the RCRA subtitle D regulations will ensure there is no reasonable probability of

adverse effects on health or the environment, unless there are mechanisms for states and citizens to monitor the situation, such as when groundwater monitoring shows exceedances above the groundwater protection standard specified in the rule, so they can determine when intervention is appropriate. EPA also believes that the recordkeeping and notification requirements will minimize the danger of owners or operators abusing the self-implementing system being established in this rule through increased transparency and by facilitating the citizen suit enforcement provisions applicable to the rule.

In contrast to the proposed rule, the Agency has identified for ease of implementation each recordkeeping, notification and Internet posting required in this rule. The proceeding section provides a summary of the requirements for each reporting mechanism.

1. Recordkeeping Requirements

This rule requires the owner or operator of a CCR landfill or CCR surface impoundment and any lateral expansion to maintain files of all required information (*e.g.*, demonstrations, plans, notifications, and reports) that supports the implementation of this rule in an operating record located at the facility. Each file must be maintained in the operating record for a period of at least five years following submittal of the file into the operating record. In certain instances, however, files must be maintained until the CCR unit completes closure. For example, the initial and periodic structural stability assessments as required under section § 257.73(d) and § 257.74(d) must be maintained for five years consistent with the timeframe for periodic reassessments. Whereas, information on the construction of a CCR surface impoundment must be maintained until the CCR unit completes closure (see 257.73(c) and 257.102.) These timeframes are generally consistent with the timeframes required for maintaining hazardous waste compliance records under subtitle C of RCRA and with the timeframes outlined in the proposed subtitle C option for the regulation of CCR. (See specifically 40 CFR 264.73 and 265.73.)

Owners or operators with more than one CCR unit may elect to consolidate all files into one operating record provided that each unit is identified and files for that unit are maintained separately in different sections of the operating record. The owner or operator of the CCR unit must place files

documenting compliance with the location restrictions; design criteria; operating criteria; groundwater monitoring and corrective action; closure and post closure care, into the operating record, with the specific documentation requirements found in § 257.105. In the development of this final rule, the Agency has included in the regulatory language a comprehensive listing of each recordkeeping and notification required by the rule. The Agency anticipates that this effort will facilitate owners or operators efforts in complying with the reporting provisions of the rule, and will provide other interested parties with a guide to the reporting provisions of the rule.

2. Notification Requirements

As previously discussed, owners or operators are required to notify State Directors and/or the appropriate Tribal authority when specific documentation has been placed in the operating record and on the owner or operator's publicly accessible Web site. In most instances these notifications must be certified by a qualified professional engineer and may, in certain instances will be accompanied with additional information and or data supporting the notification. For example under § 257.106(f)(1), within 60 days of commencing construction of a new CCR unit, a notification of the availability of the design criteria specified under § 257.105(f)(1) or (f)(3) in the operating record and on the owner or operator's publicly accessible Internet site. If however, the owner or operator of the CCR units elects to install an alternative composite liner, the owner or operator must also submit to the State Director and/or appropriate Tribal authority a copy of the alternative composite liner design which has been certified by a qualified professional engineer.

Notification requirements can be found in § 257.106, and are required for location criteria, design criteria, operating criteria, groundwater monitoring and corrective action and closure and post closure care.

3. Publicly Accessible Internet Site Requirements

The Agency is finalizing, as proposed a requirement for owners and operators of any CCR unit to establish and maintain a publicly accessible Internet site, titled "CCR Rule Compliance Data and Information." As with the operating record, owners or operators that maintain multiple CCR units may elect to use one Internet site in order to comply with these requirements, provided that the Web site clearly and

distinctly identifies information from each of the CCR units by name and location. Unless provided otherwise in the rule, information posted to the Internet site must be available for a period no less than three years from the initial posting date. Posting of information must be completed no later than 30 days from submittal of the information to the operating record. This timeframe is consistent with the notification requirements of the rule. As with the other criteria in this section, Internet postings are required for various elements identified in the following sections: Location restrictions; design criteria; operating criteria; groundwater monitoring and corrective action; closure and post closure care. These requirements are enforceable by citizen suits.

VII. Summary of Major Differences Between the Proposed and Final Rules

The basic regulatory framework outlined in the proposed rule under the subtitle D option, is being adopted in this final rule for the regulation of CCR landfills and CCR surface impoundments and any lateral expansion. However, as discussed in Unit VI of this document, the Agency has made a number of revisions to several of the provisions in the proposed rule, including (1) the timeframes for closure; (2) locations restrictions—placement above the uppermost aquifer; (3) the use of an alternative composite liner design; (4) revisions to align the structural stability criteria with the experience and data generated by the Assessment Program; and (5) air criteria. These changes have been made in response to public comments and additional information collected and analyses conducted by EPA in the course of responding to those comments. These are discussed in greater detail below. Under the proposed rule, all new CCR landfills and all CCR surface impoundments that had not completed closure would be required to retrofit to a composite liner or close within five years. However, after reviewing comments and further evaluation, the Agency has concluded that this regulatory approach was unnecessary in light of the protections afforded by the other technical provisions of the rule (*e.g.*, groundwater monitoring, corrective action). In the final rule, EPA is allowing unlined CCR surface impoundments to continue to operate for the remainder of the active life, provided that the facility documents through groundwater monitoring that the CCR surface impoundment is not contaminating groundwater. However, if groundwater

monitoring at the facility demonstrates that the unlined CCR surface impoundment has exceeded any groundwater protection standard, the owner or operator must initiate corrective action, and either remove all CCR from the unit and install a composite liner (*i.e.*, “retrofit”) or close within five years. In a departure from the proposed rule, CCR surface impoundments less than 40 acres may receive one two-year extension, providing for a maximum of seven years to complete closure. Units greater than 40 acres may receive up to five two-year extensions providing a maximum of 15 years to complete closure. These units are also eligible for alternative closure timeframes to account for site specific operational constraints.

In addition, under the proposed rule, CCR surface impoundments that had not closed in accordance with the rule would be subject to all the provisions of the rule. After further evaluation, EPA has revised the provision to allow an inactive CCR surface impoundment three years from publication of the rule in the **Federal Register** to complete closure. Owners or operators of inactive CCR surface impoundments that have not completed closure within this timeframe are subject to all the applicable requirements of the rule.

In response to comment and upon further evaluation the Agency is amending the location restriction relating to the placement of the CCR unit above the natural water table. Under the proposal, new landfills, any CCR surface impoundment, and all lateral expansions would have been required to have a base located a minimum of two feet above the upper limit of the natural water table. In the final rule, the Agency has amended this requirement to require that new CCR landfills and all CCR surface impoundments, and all lateral expansions be constructed with a base no less than 1.52 meters (five feet) above the uppermost aquifer or must demonstrate that there will not be an intermittent, recurring, or sustained hydraulic connection between any portion of the base of the CCR unit and the uppermost aquifer due to normal fluctuations in groundwater elevations (including the seasonal high water table.) EPA has made this change in response to comments and further evaluation demonstrating that this standard is the minimum distance necessary to demonstrate that no reasonable probability of adverse effects on human health and the environment will occur.

EPA proposed to require all new CCR landfills, CCR surface impoundments

and any lateral expansion to be constructed with a composite liner. A composite liner was defined as a system consisting of two components; the upper component consisting of a minimum 30-mil FML and the lower component consisting of at least two feet of compacted soil. Based on public comments and further evaluation, the Agency is finalizing a new requirement that allows an owner or operator to install an alternative composite liner provided it meets the performance standard established in the rule. EPA has concluded that this alternative composite liner affords the same protection to groundwater resources as a composite liner.

Under the proposed rule, all CCR landfills and CCR surface impoundments would have been required to manage fugitive dusts in a manner not to exceed 35 $\mu\text{g}/\text{m}^3$. The proposal also required owners or operators to control the wind dispersal of dusts consistent with the standard, and to document the measures taken to comply with the requirements. In response to comments and upon further evaluation, the Agency has removed the numerical standard of 35 $\mu\text{g}/\text{m}^3$ from the rule and is establishing a performance standard for fugitive dust control. This standard requires owners or operators of any CCR unit to adopt measures that will effectively minimize CCR from becoming airborne at the facility. The Agency considers this standard to be generally consistent with the proposed rule with the added advantage of allowing for flexibility in achieving compliance. The owner or operator must also prepare an annual CCR fugitive dust control report that describes actions taken by the owner or operator to control CCR fugitive dust and to present a record of all citizen complaints during the previous year, as well as a summary of the corrective action measures taken.

VIII. Implementation Timeframes for Minimum National Criteria and Coordination With Steam Electric ELG Rule

The final rule generally establishes timeframes for the technical criteria based on the amount of time determined to be necessary to implement the requirements (*e.g.*, installing the groundwater monitoring wells). In establishing these timeframes, EPA also accounted for other Agency rulemakings that may affect owners or operators of CCR units, namely the Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category (ELG) (78 FR 34432 (June 7, 2013)) and the Carbon

Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (Clean Power Plan) (79 FR 34830 (June 18, 2014)). Specifically, the implementation timeframes in this rule will not require owners or operators of CCR units to make decisions about those CCR units without first understanding the implications that such decisions would have for meeting the requirements of each rule. For example, this final rule requires the closure and post-closure plans to be prepared following the anticipated publication of the ELG and Clean Power Plan final rules so that owners or operators of CCR units can take into consideration those final rules as they prepare the closure and post-closure care plans.

This is also particularly true in the situation where the minimum criteria in the CCR rule could potentially require a surface impoundment to either undergo RCRA closure or retrofit with a composite liner. A decision on what action to take with that unit may ultimately be directly influenced by the requirements of the ELG rule; for example, if the final ELG rule requires a conversion to dry handling of fly ash, then it may not make economic sense for an electric utility to retrofit a surface impoundment that contains wet-handled fly ash since it would be required to cease that practice under the ELG rule. Thus, under the final timeframes in this rule, any such decision will not have to be made by the owner or operator of a CCR unit until well after the ELG rule is final and the regulatory requirements are well understood. In this example, the earliest date that a CCR surface impoundment may be triggered into a retrofit or closure decision is approximately February 2017 (the exact date would be 24 months following publication of this final rule), which would apply to a CCR surface impoundment that fails to achieve minimum safety factors for the CCR unit. This is due to the fact that the owner or operator must complete the initial safety factor assessment within 18 months of the publication of this rule plus an additional six months to initiate closure of the CCR unit if the minimum factors or safety are not achieved. The ELG rule is scheduled to be finalized in September 2015 and its effective date is 60 days following its publication. Thus, there is ample time for the owners and operators of CCR units to understand the requirements of both regulations and to make the appropriate business decisions.

The tables below summarize the implementation timeframes for the minimum criteria for existing CCR

surface impoundments and for existing CCR landfills being promulgated in this rule.

IMPLEMENTATION TIMEFRAMES FOR THE MINIMUM CRITERIA FOR EXISTING CCR SURFACE IMPOUNDMENTS

Requirement	Implementation timeframe (number of months after publication of rule)	Description of requirement to be completed
Location Restrictions (§ 257.60–§ 257.64)	42 months	—Complete demonstration for placement above the uppermost aquifer. —Complete demonstrations for wetlands, fault areas, seismic impact zones, and unstable areas.
Design Criteria (§ 257.71)	18 months	—Document whether CCR unit is either a lined or unlined CCR surface impoundment.
Structural Integrity (§ 257.73)	8 months	—Install permanent marker.
	18 months	—Compile a history of construction, complete initial hazard potential classification assessment, initial structural stability assessment, and initial safety factor assessment.
Air Criteria (§ 257.80)	24 months	—Prepare emergency action plan.
Hydrologic and Hydraulic Capacity (§ 257.82)	6 months	—Prepare fugitive dust control plan.
Inspections (§ 257.83)	18 months	—Prepare initial inflow design flood control system plan.
	6 months	—Initiate weekly inspections of the CCR unit.
Groundwater Monitoring and Corrective Action (§ 257.90–§ 257.98).	6 months	—Initiate monthly monitoring of CCR unit instrumentation.
	9 months	—Complete the initial annual inspection of the CCR unit.
	30 months	—Install the groundwater monitoring system; develop the groundwater sampling and analysis program; initiate the detection monitoring program; and begin evaluating the groundwater monitoring data for statistically significant increases over background levels.
Closure and Post-Closure Care (§ 257.103–§ 257.104).	18 months	—Prepare written closure and post-closure care plans.
Recordkeeping, Notification, and Internet Requirements (§ 257.105–§ 257.107).	6 months	—Conduct required recordkeeping. —Provide required notifications. —Establish CCR website.

IMPLEMENTATION TIMEFRAMES FOR THE MINIMUM CRITERIA FOR EXISTING CCR LANDFILLS

Requirement	Implementation timeframe (number of months after publication of rule)	Description of requirement to be completed
Location Restrictions (§ 257.64)	42 months	—Complete demonstration for unstable areas.
Air Criteria (§ 257.80)	6 months	—Prepare fugitive dust control plan.
Run-On and Run-Off Controls (§ 257.81).	18 months	—Prepare initial run-on and run-off control system plan.
Inspections (§ 257.83)	6 months	—Initiate weekly inspections of the CCR unit.
	9 months	—Complete the initial annual inspection of the CCR unit.
Groundwater Monitoring and Corrective Action (§ 257.90–§ 257.98).	30 months	—Install the groundwater monitoring system; develop the groundwater sampling and analysis program; initiate the detection monitoring program; and begin evaluating the groundwater monitoring data for statistically significant increases over background levels.
	18 months	—Prepare written closure and post-closure care plans.
Closure and Post-Closure Care (§ 257.103–§ 257.104).	18 months	—Prepare written closure and post-closure care plans.
Recordkeeping, Notification, and Internet Requirements (§ 257.105–§ 257.107).	6 months	—Conduct required recordkeeping. —Provide required notifications. —Establish CCR website.

IX. Implementation of the Minimum Federal Criteria and State Solid Waste Management Plans

As explained earlier in this document, the final regulations EPA is promulgating under RCRA subtitle D impose minimum federal criteria with which CCR units must comply without any additional action by a state or federal regulator. As discussed previously in this document, under the provisions of subtitle D applicable to

solid waste, states are not required to adopt or implement these regulations, to develop a permit program, or submit a program covering these units to EPA for approval and there is no mechanism for EPA to officially approve or authorize a state program to operate “in lieu of” the federal regulations.

EPA has, however, received numerous comments regarding the potential implementation challenges that this statutory and resulting regulatory

structure may pose, particularly in states that already have a comprehensive regulatory program governing CCR units. These concerns include the fact that facilities may need to comply with two sets of potentially differing regulations, perhaps resulting in confusion for the regulated community and the general public, and also potentially resulting in inconsistent results from citizens seeking enforcement of the criteria. The

commenters were also concerned that there is no explicit mechanism for EPA to officially approve a state program (as there is in subtitle C or in the municipal solid waste provisions of subtitle D). In addition, in states without a current formal program for overseeing CCR landfills and surface impoundments at coal fired electric utilities, stakeholders have expressed a preference for a state mechanism for implementing the federal requirements. Finally, many stakeholders expressed a strong preference for a permit program with its opportunities for public input and transparency.

Moreover, EPA recognizes the critical role that our state partners play in implementation and ensuring compliance with environmental regulations. This is particularly important in complex situations, such as presented by CCR landfills and surface impoundments that involve corrective action and requirements and timelines for closure of units. EPA expects that states will be active partners in overseeing the regulation of CCR landfills and CCR surface impoundments, and has adopted a number of provisions to ensure that States have the information necessary to undertake this role. First, the final regulations require owners or operators of regulated CCR units to notify the state of actions taken to comply with the requirements of the rule (see § 257.106). Facilities will also be required to maintain a publicly accessible internet site that will document the facility's compliance with the requirements of the rule; states (along with other members of the public) will be able to access this site to monitor facility activities (see § 257.107). (For a detailed discussion of these requirements, please see Unit VI.N of this document.)

In order to ease implementation the regulatory requirements for CCR landfills and CCR surface impoundments, EPA strongly encourages the states to adopt at least the federal minimum criteria into their regulations. EPA recognizes that some states have already adopted requirements that go beyond the minimum federal requirements; for example, some states currently impose financial assurance requirements for CCR units, and require a permit for some or all of these units. This rule will not affect these state requirements. The federal criteria promulgated today are minimum requirements and do not preclude States' from adopting more stringent requirements where they deem to be appropriate.

As noted above, commenters on the proposal voiced concerns that because

EPA does not have the authority to approve a state program under subtitle D of RCRA, there is no document in which EPA formally provides its judgment that a state solid waste program substantially incorporates the minimum federal criteria. However, a mechanism for this has been available for many years through the solid waste management planning process already in the regulations at 40 CFR part 256 "Guidelines for Development and Implementation of state Solid Waste Management Plans." This process, designed early in the development of the waste management infrastructure, was structured to encourage states to effectively plan for and manage their solid wastes, including upgrading or closing any units that were considered "open dumps" through the development of SWMPs. Currently most states have SWMPs that have previously been submitted to and approved by EPA. EPA strongly recommends that states take advantage of this process by revising their SWMPs to address the issuance of the revised federal requirements in this final rule, and to submit revisions of these plans to EPA for review, using the provisions contained in 40 CFR part 256. To be clear, EPA is not suggesting that states revise their entire SWMPs, but only that states revise their plans to address the revised federal requirements being promulgated today. EPA would then review and approve the revised SWMPs provided they demonstrate that the minimum federal requirements in this final rule will be met. In this way, EPA's approval of a revised SWMP signals EPA's opinion that the state SWMP meets the minimum federal criteria.

As noted above, the part 256 regulations established the system for the development and approval of initial SWMPs as well as their revisions. For the convenience of the reader, we describe these regulations in the following paragraphs. The regulations lay out a series of requirements that a plan must meet to be approved, as well as a number of recommendations that should also be reflected in the solid waste management plan. (*e.g.*, 40 CFR 256.01–256.04 and 256.20–256.27.) For example, § 256.02 sets out the scope of the SWMPs, requiring that the plans address "all solid waste in the state that poses potential adverse effects on public health or the environment or provides an opportunity for resource conservation or resource recovery." The regulations also specify that the plan must require that all solid waste shall be disposed of in "sanitary landfills,"—*i.e.*, units that meet any federal requirements

promulgated under RCRA section 4004(a)—or otherwise disposed of in an environmentally sound manner. 40 CFR 256.01(a)(2). The plan must also prohibit the establishment of new open dumps, and provide for the closing or upgrading of all existing open dumps within the state, pursuant to the requirements of RCRA section 4005. 40 CFR 256.01(a)(2)–(3). State plans must also "set forth an orderly and manageable process for achieving the objectives of the Act and meeting the requirements of these guidelines." 40 CFR 256.02(d). The regulations further specify that the plan "shall describe as specifically as possible the activities to be undertaken, including detailed schedules and milestones." *Id.*

The part 256 regulations further require a SWMP to identify the state's legal authorities, and regulatory powers, including any revisions that may be necessary to implement the plan. 40 CFR 256.02(e). The plan must also identify and set out the responsibilities of state, local, and regional authorities that will implement the state plan. 40 CFR 256.10(a). Thus, the SWMP is the comprehensive compendium, developed and adopted with public participation, setting forth how solid waste is managed in a particular state. As such, SWMPs have been a key component of solid waste programs for many years. As stated above, states that have approved plans will only need to address these requirements for CCR landfills and surface impoundments.

In addition to the substantive requirements, the part 256 regulations impose a number of procedural obligations. Before submission to EPA, the SWMP must be adopted by the state pursuant to state administrative processes and developed in accordance with the public participation requirements set out in § 256.60. In addition, all SWMPs were to contain procedures for revisions. 40 CFR 256.03(e). EPA anticipates that states would rely on their existing procedures to revise their SWMPs to implement the new federal criteria.

Currently, most states have approved SWMPs. These approvals were based on the requirements applicable to solid waste management that were in force at the time of approval. Now, because EPA is promulgating revised federal criteria, the facilities that will be considered to be "sanitary landfills" and "open dumps" is changing. Thus, EPA expects that SWMPs in many states will need to be revised to account for these revised Federal requirements. Consistent with the provisions in § 256.01(a)(2)–(3) and with the requirement in § 256.03(e) that such plans are to be revised where

necessary, in order to maintain approval of these plans EPA expects that states will revise their SWMPs to account for the promulgation of revised federal criteria for CCR landfills and surface impoundments.

As fully explained later in this section, the plans are generally the best tool available for demonstrating how CCR units will be regulated in a state, including how the state intends its state requirements to relate to the federal regulations. In addition, EPA anticipates that the public participation processes will have substantial benefit, by involving all sectors of the community in addressing the management of CCR in a particular state.

EPA believes that the revised SWMPs will have significant benefits and provide the best mechanism available to respond to the concerns expressed by commenters regarding the role of states in management of this waste. First, the revised plans will enable states to set out, as part of their overall solid waste program, how the State intends to regulate CCR landfills and surface impoundments; that is, these plans can demonstrate how, if at all, the state program has incorporated the minimum national criteria and can highlight those areas where the state regulations are more stringent than or otherwise go beyond the federal minimum criteria. For example, the plan can describe the actions the state will take to oversee CCR units, particularly those units undergoing closure or corrective action, and how the State intends to review or use the notices and other information pertaining to the units that the facility owners will be providing to the state (as required in the federal regulations). Providing this detail can greatly assist the regulated community to understand the regulatory structure under which they will be operating. It can also assist the general public in understanding the regulations and thereby their ability to monitor industry's compliance with the rule.

Second, substantial benefits will be gained through the public participation process required as part of revising the state plans. See 40 CFR 256.60. At a minimum, these processes will promote greater awareness of the federal regulatory requirements, as well as how these fit into the overall context of solid waste management in the State, which will be very valuable as the new minimum criteria for CCR are implemented. In addition, these processes will provide the public and communities near CCR landfills and surface impoundments with an opportunity to participate in the decision making about how CCR are

managed in their state. Finally, the record generated by the public participation process has an inherent value to states, the utilities, and the general public in that it can demonstrate explicitly the manner in which issues related to the regulation of CCR landfills and surface impoundments were raised and resolved in the state. This record would be a value in any later proceedings seeking enforcement of the rule.

Third, once EPA has approved a SWMP that incorporates or goes beyond the minimum federal requirements, EPA expects that facilities will operate in compliance with that plan and the underlying state regulations. In those circumstances, EPA's view is that facilities adhering to the requirements of a state program that is identical to or more stringent than an approved SWMP will meet or exceed the minimum federal criteria. In addition, EPA anticipates that a facility that operates in accord with an approved SWMP will be able to beneficially use that fact in a citizen suit brought to enforce the federal criteria; EPA believes a court will accord substantial weight to the fact that a facility is operating in accord with an EPA-approved SWMP. In addition, as noted above, the record generated by the public participation process in developing the SWMP has an inherent value to the states, the utilities, and the general public in any such litigation. The more specific the record is on the public process regarding how the SWMP would incorporate the minimum federal requirements and any state oversight the more valuable it would be in any court proceedings to complement EPA's approval of the SWMP. As fully explained earlier, EPA approval of a state SWMP does not mean that the state program operates "in lieu of" the federal program as EPA does not have the authority to make such a determination.

The process and criteria for approval of SWMPs are set out in 40 CFR part 256. The part 256 regulations state that EPA has six months from submittal of a plan to either approve or disapprove it. The regulations further state that EPA will approve a plan if the agency determines that the plan: (a) Meets the requirement set out in RCRA Section 4003(a)(1), (2), (3), and (5); (b) and contains provisions for revisions. Those requirements of 4003(a) are: The identification of the responsibilities of state, local, and regional authorities in the implementation of the plan and the means for coordinating regional planning and implementation; prohibition on the establishment of new open dumps and the requirement that all solid waste be utilized for resource

recovery or disposed of in landfills meeting the minimum federal criteria; provision of the closing or upgrading of all existing open dumps; and no prohibition on negotiating or entering into contracts for the supply of solid waste to resource recovery facilities. In this rule, EPA has established minimum national criteria for CCR disposal facilities, which effectively define when CCR disposal facilities are open dumps. In order for EPA to approve a revised state SWMP, it must determine that the state plan provides enforceable regulatory requirements for the closing or upgrading of CCR disposal facilities that constitute open dumps. A state SWMP can do so through direct incorporation and implementation of the minimum federal criteria established by this rule or through incorporation of alternative requirements that are at least as protective of public health and the environment.

EPA anticipates that it will be able to review and approve state SWMPs that adopt the federal regulations in total or go beyond the federal minimum criteria very quickly; EPA's review of plans that do not adopt the federal minimum criteria or alter them substantially is likely to be more difficult and therefore more time consuming. EPA's review of and decision to approve or disapprove a state solid waste management plan will be based on the record before the Agency at the time of that decision. This record includes the record developed during the public participation process in which the state engaged prior to submitting the revised SWMP to EPA for approval. Should information come to EPA's attention at a later date that a state is not implementing its approved plan or taking actions at variance with the plan's provisions, EPA will take appropriate steps including potentially withdrawing approval of the SWMP.

Because SWMPs form a critical part of the implementation of this rule, EPA intends to engage the states very soon after promulgation of the minimum criteria to develop a streamlined, efficient process for review and approval of these revised plans. EPA also intends to develop both guidance for states to use to submit revisions and for EPA to use in its review of the revisions.

In addition, EPA is exploring options for developing and publishing the statutorily required inventory of open dumps. Specifically, within one year of the promulgation of federal criteria under RCRA section 4004(a), section 4005(b) directs EPA "to assist the states in complying" with the directive in section 4003(a)(3) that state SWMPs

shall provide for closure and upgrading of open dumps (*i.e.*, facilities that do not meet the revised federal criteria) by publishing an inventory of all “open dumps” in the US. 42 U.S.C. 6945(b). Because the minimum criteria promulgated today include implementation timelines, it is possible for a facility to become an open dump in the future for failure to meet the minimum criteria. Thus, EPA anticipates publishing an initial inventory and likely subsequent periodic updates.

Finally, in addition to benefits just described of a revised SWMP, RCRA Section 4005 provides an incentive in certain circumstances for states to obtain EPA approval on revised SWMPs. Under section 4005, States with approved SWMPs can provide additional time for facilities that do not meet the national minimum criteria (*i.e.*, “open dumps”), to come into compliance. As noted above, within one year of the promulgation of federal criteria under RCRA section 4004(a), section 4005(b) directs EPA “to assist the states in complying” with the directive in section 4003(a)(3) that state SWMPs shall provide for closure and upgrading of open dumps (*i.e.*, facilities that do not meet the revised Federal criteria) by publishing an inventory of all “open dumps” in the US. 42 U.S.C. 6945(b). Facilities on this inventory are eligible to obtain a “schedule of compliance” from a state with an approved management plan, provided certain additional criteria have been met. Specifically, the facility must demonstrate that it is unable to use other “public or private alternatives” to manage its waste in the non-compliant unit. In such cases, the state may establish a schedule of remedial measures that includes “an enforceable sequence of actions or operations” which must lead to compliance within a “reasonable time (not to exceed five years from the date of publication of criteria).” 42 U.S.C. 6945(a). Such a schedule would shield the facility from any suit brought to enforce the criteria. Thus, if a State receives EPA approval on its revised plan, it can offer facilities additional time, albeit limited, to come into compliance with the federal requirements. EPA expects, however, that few facilities will either be eligible for or need to take advantage of this flexibility. First, as a practical matter, only a limited number of facilities or units will fall into the category of open dumps within the relevant timeframes. As noted, an open dump is defined as a solid waste facility that does not meet the federal minimum criteria. 42 U.S.C.

6903(14). As also explained, the final criteria establish timeframes for facilities to implement the technical requirements, ranging between six months to several years, including certain provisions that authorize extensions. Until those deadlines pass, the facility is not an open dump and therefore would not be eligible for or need a compliance schedule under section 4005. Because the statute limits the states’ ability to set compliance schedules to five years from the publication of the criteria, if a facility is out of compliance with the criteria either shortly before or after this time five-year timeframe, from a purely practical perspective, compliance schedules are no longer a viable option. Thus for certain of the provisions (*e.g.*, closure, which generally must be completed within five years) compliance schedules would never be available.

Second, the timeframes in the regulation reflect EPA’s considered judgment of the amount of time that would realistically be needed under normal circumstances for a facility to come into compliance, based on standard engineering practices used throughout the industry. Most facilities will, in fact, be able to comply with the federal criteria within the specified timeframes, and so will not need to seek a compliance schedule. For example, as part of its Dam Safety Assessment program, EPA evaluated all CCR surface impoundments with a dam hazard potential rating of “high” or “significant,” using criteria that were essentially the same as the technical criteria adopted in the final rule. As of the completion of that program, all units were either rated satisfactory, or were taking steps to ensure the structural stability of the unit. EPA acknowledges that ensuring the structural stability of these units requires continued maintenance and oversight, so past compliance is no guarantee of future compliance. However, our experience from the Assessment Program leads us to expect that the vast majority of CCR surface impoundments will be able to demonstrate compliance with the structural stability requirements in the final criteria within the specified timeframes. Any facility that seeks to justify an extension would have a heavy burden to demonstrate that anything longer than a minor amount of time is needed to implement the structural stability requirements would meet the statutory standard (*i.e.*, be “reasonable”). Similarly, absent factors beyond the facility’s control (*i.e.*, “Acts of God”) EPA is unable to envision the

circumstances that would support a decision that additional time beyond the 30 months already provided in the criteria to comply with the groundwater monitoring requirements would be “reasonable.”

Third, RCRA section 4005(a) imposes a number of requirements that will further limit both the circumstances in which a compliance schedule may be granted, and the amount of time that states will ultimately be authorized to grant. 42 U.S.C. 6945(a). Section 4005(a) requires that to obtain a compliance schedule, the facility must first demonstrate that it has considered other public or private alternatives to comply with the prohibition on open dumping and is unable to utilize such alternatives.¹²⁷ At a minimum, this means that the facility must demonstrate that there are no alternative units that meet the federal requirement, either on-site or off-site, that can be used to dispose of the CCR. EPA also interprets this provision to require the facility to demonstrate that it has made a good faith effort to comply with the criteria, which would include documenting the actions that had been taken, along with the facts demonstrating the reasons that compliance was not feasible within the criteria’s timeframes. As has been previously discussed, cost is not a factor that is appropriately considered under sections 1008(a)(3), 4004(a), or 4005(a), and so would not provide an adequate justification for these purposes either.

Further, the statute requires that a schedule for compliance specify “a schedule of remedial measures, and an enforceable sequence of actions, leading to compliance within a reasonable time.” *Id.* This means that any compliance schedule must lay out precisely the activities that remain to be completed, along with clear and enforceable deadlines for each. Again, this will effectively serve to limit the ultimate amount of time that would be granted in any individual case.

Finally, as stated earlier, the statute requires that any schedule to bring an open dump into compliance is to be limited to a “reasonable time,” that is not to exceed five years from the date of publication of the federal criteria. Whether a particular period of time is “reasonable” depends on the facts of the particular situation, but, generally speaking, it should take into account the technical complexity of the requirement, the activities that remain

¹²⁷ Upon promulgation of criteria under sections 1008(a)(3) and 4004(a), the continued use of any unit that does not comply with these criteria is prohibited, as “open dumping,” unless a compliance schedule has been established.

to be completed, the reasons for the lack of compliance, and other particular factors such as geology, geography, weather, and engineering circumstances. For example, EPA expects that a significantly lower amount of time would be reasonable for a facility that simply chose to delay implementation than for a facility whose compliance was complicated by factors beyond its control. Overall, to be consistent with the statute, EPA expects that facilities seeking to establish an alternative compliance schedule would need to provide a factual justification that not only documents the reasons that compliance within the criteria's timeframes was not feasible, but carefully documents the facts that would support a determination that any significant extension of time to come into compliance is "reasonable."

EPA expects that as part of any revised solid waste management plans, a state would explain the criteria it intended to use to determine whether and how much additional time to comply with the federal criteria should be granted. See 40 CFR 256.04(f) and 256.26. Consistent with the statute's directives, EPA expects that any extension would be limited to the time absolutely necessary to bring a unit into compliance, and that five years would not automatically be granted. Nor would a revised solid waste management plan that granted all "open dumps" an additional five years generally meet the regulatory criteria for approval. *Id.* EPA also expects that states would consider the original timeframes laid out in the criteria. As previously discussed, in developing these time frames EPA sought to achieve a balance between the minimum amount of time that would realistically be needed to properly and adequately implement the technical requirements, and the need to expeditiously address the significant risks associated with CCR units. EPA therefore expects that in granting additional time under compliance schedules, states will be guided by the same considerations. As documented throughout this preamble, CCR disposal units do pose significant risks to public health and the environment; it is therefore critical that actions to implement these criteria be taken expeditiously to address these risks. EPA intends to closely review those portions of a state solid waste management plan that address the processes and criteria for establishing compliance schedules.

In conclusion, EPA believes that the use of the solid waste management plan revision process is the best mechanism available under RCRA subtitle D to

address the states' interest in obtaining formal EPA "approval" of their solid waste management plans. EPA will continue to work with the states as the rules are implemented to ensure that this process is streamlined and efficient.

X. Risk Assessment

EPA revised and updated the 2010 draft risk assessment using mathematical models to determine the rate at which chemical constituents may be released from different waste management units (WMUs), to predict the fate and transport of these constituents through the environment, and to estimate the resulting risks to human and ecological receptors. Modeling was conducted in a step-wise fashion, with more refined analyses used at each subsequent step. Below, EPA discusses how the risk assessment was revised and updated in response to the various public comments received. The Agency also provides a summary of the analyses conducted as part of the risk assessment and the final conclusions drawn from these analyses. For further discussion, see the revised risk assessment and response to comments documents available in the docket.

A. Response to Public Comments

EPA received numerous, general comments on both the draft risk assessment and subsequent NODAs. These comments tended to express general support or disapproval for the risk assessment methodology, data, or results. However, these comments did not provide any specific technical recommendations or data that could be used to improve the risk assessment. EPA appreciates the overwhelming interest of the public regarding the Agency's risk assessment. However, without any substantive critique that could be acted upon, EPA could not alter the risk assessment in response to these more general comments. To the extent that any commenter mentioned substantive issues regarding a specific aspect of the risk assessment, these comments are further addressed in subsequent sections of this preamble.

1. Comments Related to Fate and Transport Modeling

COMMENT: Commenters wondered how realistic results may be using a risk assessment model that assumes current conditions will be maintained for 10,000 years. Specifically, commenters were concerned about the assumption that constituent concentrations in the leachate remain constant throughout that timeframe. In addition, commenters questioned the assumption that well use

and climate conditions will remain constant for 10,000 years.

EPA RESPONSE: EPA acknowledges that the 10,000-year groundwater modeling time horizon required further clarification in the revised risk assessment. Thus, the text in the revised risk assessment has been updated to make it clear that the selection of a *maximum* 10,000-year time horizon does not mean that all model simulations continue for the full 10,000 years. Specifically, Section 4 states:

EPA ran the model until either the observed groundwater concentration of a constituent at the receptor point reached a peak and then fell below a model-specified minimum concentration (10^{-16} mg/L), or the model had been run for a time period of 10,000 years.

Although groundwater concentrations are modeled beyond the observed peak or maximum average concentrations, these post-peak or post-maximum average predictions are not used in estimates of risk. In many cases the leachate plume reaches the receptor point much sooner than 10,000 years. As discussed in Section 5 and appendix K of the revised risk assessment, on a national scale, both unlined and clay-lined surface impoundments consistently pose peak risks within 100 years. Meanwhile, composite liners show much longer peak arrival times, close to 10,000 years for most surface impoundment runs. Peak arrival times are longer for landfills, and more than 10,000 years for composite-lined landfills. Under such timeframes, EPA acknowledges that surface conditions may change significantly, compounding the uncertainty associated with the predicted exposures and risks. However, EPA also notes that the time to first exceedance of selected risk criteria is typically considerably less than the time to the greatest exceedance.

EPA acknowledges that future groundwater use patterns may shift as the number and location of receptors changes, and that it is unknown whether future changes in receptor locations and other surface conditions would result in greater, lesser, or the same risk as predicted in this analysis. However, no known data exist that would allow EPA to do more than speculate about future population dynamics. Thus, the Agency relied on the best available data on the current population to conduct the revised risk assessment. The approach used to place residential groundwater wells is further discussed in Section 4 and appendix B of the revised risk assessment, and the associated uncertainties are discussed in Section 5.

COMMENT: Comments related to the specifics of the groundwater transport modeling were received from commenters. Issues covered in their comments included the following:

Geochemical Modeling:

- The way that soil and aquifer K_d values were determined and used, including the fact that the risk assessment did not explicitly model oxidation/reduction reactions and precipitation-dissolution processes that may influence the chemical fate and transport.

- Whether hydrogeologic settings were assigned correctly.

Selection of Sorbents:

- The selection of iron oxides, and dissolved organic matter (DOM) and particulate organic matter (POM) to represent all sorbents in soil and aquifer materials.

- The selection of goethite as the iron oxide mineral used to estimate sorption to vadose zone and aquifer materials.

- The treatment of POM and DOM in the MINTEQA2 modeling used to generate the K_d values (sorption isotherms) used in the analysis.

- The adequacy of sensitivity and uncertainty analyses for the MINTEQA2 modeling.

K_d Values:

- The approach used to determine the value of pH in the aquifer for selecting K_d .

- The subsequent calculation of the retardation factor.

Arsenic Speciation:

- The assumption that arsenic III is the only or dominant form of arsenic is too conservative, as arsenic III readily converts to the less mobile arsenic V species under aerobic conditions.

- A commenter requested time to exceedance results for arsenic species and other constituents, as well as distance versus concentration output from EPACMTP.

EPACMTP Assumptions and Simplifications:

- The appropriateness of EPACMTP and its various assumptions and simplifications for groundwater modeling, including:

- Not altering the chemistry of the aquifer receiving leachate.

- Not simulating variable oxidation-reduction potential conditions or multiple chemical species during a model run.

- Not evaluating the potential mobilization of non-waste related metals from soils when exposed to leachate with potentially different geochemistry compared to ambient conditions.

- Not considering the potential occupation of adsorption sites by

naturally occurring metals or competition from multiple contaminants.

- Not considering mounding-induced reduction of the unsaturated zone thickness or other cases where the groundwater table is in direct contact with the bottom of the WMU.

- Not considering fractured rock, karst, and other complex hydrogeologic settings.

The comments also addressed the general need for more transparency in the data and methods used in the analysis and the need for validation and/or comparison of model inputs and results to site-specific field data.

EPA RESPONSE: The following is EPA's response broken out by subtopic.

Geochemical Modeling:

EPA recognizes that explicit reactive/geochemical modeling would be more realistic than using linear and nonlinear partitioning coefficients. EPA considered the use of the Objects Representing Chemical Speciation and Transport (ORCHESTRA) model during revisions to the risk assessment because it can account for geochemical interactions, such as aqueous complexation, precipitation, surface complexation, and ion exchange.¹²⁸ However, such modeling is not a practical approach for a nationwide analysis because the data collection effort necessary to populate such a model on a nationwide, location-based level would be prohibitively expensive. Even assuming such data were available to populate ORCHESTRA or a similar model, the complexity of the algorithms necessary to account for highly variable geochemical and hydrogeologic conditions nationwide and the time required to run such a model would also be impractical. Furthermore, the use of K_d as a surrogate for dilution/sorption/precipitation processes is a widely used and accepted method in both the scientific literature and the groundwater modeling community, provided the values of K_d used are appropriate to account for the range of potential attenuation processes.¹²⁹ Therefore, for a nationwide analysis, the use of K_d is a practical and necessary simplification. EPA has added discussion to the risk assessment to clarify K_d -related issues raised by the commenters. Appendix H of the revised risk assessment displays

¹²⁸ Meeussen, J.C.L. 2003. ORCHESTRA: An Object-Oriented Framework for Implementing Chemical Equilibrium Models. *Environmental Science & Technology* 37(6):1175–1182.

¹²⁹ U.S. EPA. 1999. *Understanding Variation in Partition Coefficient, K_d , Values Volume I: The K_d Model, Methods of Measurement, and Application of Chemical Reaction Codes*. EPA 402–R–99–004A. OAR. Washington, DC. August.

select percentiles of the K_d values used in the analysis. These values were derived from the isotherm sampling performed by EPACMTP and used in the modeling (including effective K_d values for the unsaturated zone). A listing of all individual K_d values available in the MINTEQA2 isotherms used in these analyses would not be practicable. Instead, the full input and output files are available to the public in the docket.

Some commenters suggested that EPA should focus on the effect of redox potential in the groundwater on fate and transport. While this is possible, it would take significant effort to set up this type of approach for every inorganic constituent considered in the risk assessment, and it was determined not to be necessary. EPA did indirectly account for some of the major effects of redox potential when modeling arsenic and other constituents for which speciation is known to have a significant impact on mobility. For these constituents, a model run was conducted for each species under the assumption that all of the constituent mass was present as that speciation. Therefore, EPA did not evaluate redox, and acknowledges this is a source of uncertainty for the groundwater transport modeling approach. Commenters expressed concern about the assumption of a single speciation, noting that it is likely that constituents will be present as some combination of the different species. EPA acknowledges that this approach is a simplification of real world conditions; however, the Agency believes this approach is useful because it provide bounding estimates that can inform the risk assessment.

Regarding the concern that there were possible errors in hydrogeological assignments, these assignments have been updated in the revised risk assessment based on a more robust and accurate dataset for waste management units (WMU) and facility locations. These data are discussed in Section 3 and appendix B of the revised risk assessment. Because these assignments were based on more complete GIS coverages of soils and aquifers across the U.S., they are more consistent and reliable than the previous ones in representing the spatial variability in hydrogeologic environments needed by the EPACMTP model.

Selection of Sorbents:

In recent years, databases of equilibrium sorption reactions have been compiled in the literature for several of the dominant potential sorbents in the environment, including two common iron oxide minerals: hydrous ferrous oxides (HFO) and

goethite.^{130 131} Because of the availability of these data and their prevalence in the environment, these are the sorbent types available for MINTEQA2 modeling used to develop constituent sorption isotherms. Other common hydrous oxides that can sorb chemicals include hydrous oxides of aluminum, manganese, and silicon (Dzombak and Morel, 1990); however, there were insufficient data on these to consider their use. To determine the most appropriate iron oxide sorbent, EPA chose goethite as the most appropriate form of hydrous iron oxide for the risk assessment to avoid an underestimation of risk. While both goethite and HFO are common forms of iron oxide in soils, goethite is a much poorer adsorbent than HFO, thereby leading to relatively greater groundwater plume concentrations. EPA acknowledges that HFOs are common as well and there is the potential for HFOs with greater sorption affinities than goethite to be present at some CCR disposal sites. In reaching this conclusion, EPA consulted experts who published on this subject (specifically, Dr. David Dzombak, Dr. Samir Mathur and Dr. Jerry Allison), developer of MINTEQA2. EPA agrees that this was a necessary assumption.

EPA also recognizes that limiting MINTEQA2 to two types of sorptive materials (iron oxide and organic matter [DOM and POM]) is a simplification given the wide range of soil and aquifer materials that actually adsorb metals (e.g., clay and other soil minerals). However, given that the extensive sorption databases needed to perform MINTEQA2 are available for POM, DOM, and goethite, they are the best representation of subsurface sorption processes active in soils and aquifer materials. This decision and the actual approaches used to model DOM, POM, and goethite are described in detail in MINTEQA2 background documents and the associated Response to Peer Review Comments for those documents.

Finally, with respect to the adequacy of sensitivity and uncertainty analyses for MINTEQA2, EPA notes that the 2009 sensitivity analysis showed that only results for strongly sorbing constituents were sensitive to the K_d values output from MINTEQA2. In contrast, the three risk drivers identified in the revised risk assessment (arsenic, lithium, and molybdenum) all tend to be weakly

sorbing, with the exception of arsenic in the pentavalent state. Furthermore, to the extent K_d affects the risks, Section 5 of the revised risk assessment evaluated these effects by examining alternate speciation (e.g., trivalent and pentavalent arsenic) as well as the effect of waste type and waste pH. For these reasons, EPA finds that sufficient sensitivity and uncertainty analyses were conducted.

K_d Values:

The approach adopted in the risk assessment to determine the value of pH in the aquifer (used to select K_d) and the subsequent calculation of the retardation factor assumed that, after entering the aquifer, the leachate plume would thoroughly mix with the ambient, uncontaminated groundwater. One commenter stated that the mixing zone would only be present at the periphery of the groundwater plume. This is consistent with the general conceptual model used in this risk assessment of uniform subsurface flow with recharge. However, EPACMTP requires a constant groundwater pH in each model run to model transport with nonlinear sorption isotherms. EPA assumed full mixing as a more conservative approach to selecting pH because, for most metals, sorption/precipitation tends to increase (i.e., K_d goes up) with higher pH, which is characteristic of much CCR leachate (i.e., assuming full mixing lowers the groundwater pH and, thus, decreases sorption). To characterize the potential effect of this simplifying assumption on calculated risk results, EPA conducted an uncertainty analysis that is presented in Section 5 of the revised risk assessment.

EPA considered comparing the modeled K_d values to available estimates in the published literature, but did not do so for three reasons. First, there are many individual values within each K_d isotherm that depend both on constituent concentrations and MINTEQA2 master variables, such as pH, organic carbon, and iron oxide concentrations. Second, measured values are limited to specific sites where conditions that may not be fully documented, and because such variables can vary from site to site, it can be very difficult to determine exactly how well the collected values represent conditions across the country. Third, field and laboratory methods for measuring K_d vary greatly and are not easy to compare, adding a significant measurement uncertainty to the variability issues mentioned above. Therefore, not only would this comparison be complicated to perform, it would also be subject to its own

numerous uncertainties and unknown biases, making it unlikely to provide a basis for definitive conclusions about the representativeness of the current approach.

With respect to comments on the calculation of the retardation factor, EPA points commenters to U.S. EPA (2003)¹³² which discusses how EPA uses K_d values to model sorption in the subsurface environment.

Arsenic Speciation:

Commenters also pointed out that literature on arsenic V often shows that it is orders of magnitude less soluble than arsenic III, which appears inconsistent with the results of the 2010 Draft Risk Assessment. The draft assessment found similar exposure concentrations for both arsenic species. As a result of a combination of different updates to the revised risk assessment, the modeled concentrations of arsenic III and V are now generally an order of magnitude different, although the specific results vary between pathways. One cause of this difference is likely the increased distances to receptors in the revised risk assessment. The increased distance would lead to additional arsenic V attenuation because this species sorbs more readily (i.e., has greater K_d values) than arsenic III. Section 5 of the revised risk assessment discusses the uncertainty associated with modeling both species of arsenic. For the specific concentrations at various distances, EPA directs the commenter to review the input and output files available in the docket.

EPA did not model the time to first exceedance of risk criteria, but did conduct a sensitivity analysis for the time to peak groundwater concentration. The time to peak results for arsenic species and other select constituents are presented in Section 5 of the revised risk assessment. The distance to nearest well receptors is also discussed in Section 5 of the revised risk assessment. The relation of distance versus concentration was not explicitly evaluated on a per simulation basis, rather all receptor well locations within one mile from the WMU footprint were included in the analysis to provide a conservative risk estimate.

EPACMTP Assumptions and Simplifications:

Comments on the treatment of dispersivity within EPACMTP highlighted the need for greater transparency about the model's

¹³⁰ Dzombak, D.A. and F.M.M. Morel. 1990. Wiley-Interscience, New York, 393 pp.

¹³¹ Mathur, Samir S. 1995. *Development of a Database for Ion Sorption on Goethite using Surface Complexation Modeling*. Carnegie Mellon University, M.S. Thesis, Department of Civil and Environmental Engineering.

¹³² U.S. EPA (Environmental Protection Agency). 2003. *EPA's Composite Model for Leachate Migration with Transformation Products (EPACMTP)*. Technical Background Document. EPA 53-R-03-002. Office of Solid Waste, Washington, DC.

underlying assumptions and input data sources. The documentation for the 2010 Draft Risk Assessment did not include comprehensive tables detailing model input parameters, their values or distributional characteristics, and the sources of the data used. These values are, in many cases, publicly available in the EPACMTP Background and Parameters/Data Background documents.^{133 134} EPA still finds it inappropriate to duplicate this large amount of data. Instead, the revised risk assessment includes an increase in the number of references to these documents, and directs readers to refer to these documents for further information. Additionally, the full input and output files are available to the public in the docket.

With respect to the fundamental questions raised about the assumptions and simplifications built into EPACMTP, EPA acknowledges some limitations within the model. Some simplifications are necessary to complete a large, national scale risk assessment, and the model provides the most appropriate available tool to complete this type of analysis. As discussed in Section 5 of the revised risk assessment, EPACMTP has been thoroughly peer reviewed and tested for application in large-scale risk assessments. This section also provides additional documentation on these internal and external reviews of the model, its limitations, and the associated uncertainties. With respect to particular criticisms levied:

- EPA alters the chemistry of the aquifer receiving leachate by changing the aquifer pH in response to full mixing. Alternatively, EPA conducts an analysis in Section 5 using the alternate assumption of partial mixing;
- EPA evaluates alternative species in separate model runs. As described in the revised risk assessment, EPA believes that presentation of these two results bound the range of possible risks from a constituent. To the extent that EPA does not model oxidation-reduction potential, EPA notes that this would require geochemical modeling, which was not feasible for the reasons discussed above;
- Full mixing of the leachate plume did not demonstrate significant potential to affect aquifer pH. Thus, since pH is one of the most significant

factors affecting constituent mobilization EPA does not believe significant constituent mass from the underlying soils will be mobilized in most cases. Instead, it is a site-specific consideration that is not possible to include in a nationwide risk assessment.

- A discussion of sorbent competition as a limitation of the analysis is discussed in Attachment H-1 of appendix H in the revised risk assessment.

- EPA did not consider groundwater mounding, groundwater in contact with the waste management unit, fractured rock, karst, and other complex hydrogeologic settings as these are site-specific considerations that could not be accommodated in a nationwide risk assessment.

COMMENT: Several commenters discuss the use of site-specific analysis to increase confidence in the risk assessment results. They expressed concern that the results are difficult to evaluate given the significant variability and uncertainty associated with the national scope of the analysis, and that validation or calibration of EPACMTP results with actual data is needed, including the potential use of damage cases.

EPA RESPONSE: Commenters expressed concern about validation of the EPACMTP model with actual field data and some commenters suggested that EPA should use actual monitoring data rather than modeling to assess potential risks. EPA recognizes the importance of monitoring data in characterizing specific sites. EPA agrees with the commenters that confidence in the results of an environmental fate and transport model increase significantly when model predictions can be compared favorably with measured field results. However, site-specific modeling involves extensive data collection and detailed modeling (representing site-specific conditions and processes), which was not possible for this large, national-scale risk assessment. Available site-specific data are limited to a relatively small fraction of locations and settings. This risk assessment was intended to represent a broad range of potential conditions. Consequently, EPA validated the model results with actual field data by comparing the results of the national probabilistic, Monte Carlo analysis to proven/potential damage cases from across the United States. These damage cases represent real-world instances of contamination from CCR WMUs that provide the best available comparison for the results of the risk assessment. This comparison is presented in Section 5 of the revised risk assessment. EPA also provided

extensive EPACMTP validation results relative to theoretical models and field data in appendix D of the EPACMTP technical background document (U.S. EPA, 2003a,b).¹³⁵

COMMENT: Comments relating to the number of wells contaminated, the realistic risk of exposure, well placement within the plume, distance to receptor wells, identification of surface water receptors, surface water interception modeling, the appropriateness of receiving water reaches (e.g. the nearest surface water body), and other receptor or well-related issues were received from public commenters.

Surface Water Interception Modeling:

Regarding surface water interception, many comments were supportive of EPA's approach for simulating the interception of groundwater by surface water bodies, which has been added to the revised risk assessment. However, some commenters indicated that a meaningful allocation of the groundwater plume between a surface water body and a downgradient well receptor can only be determined reliably with assessment of the system at a local scale.

Commenters also raised questions regarding the specific surface water interception methodology, including the base data and algorithms used to calculate stream base flow, net groundwater flow, and the contaminant mass loss to groundwater. Concern was expressed about the large range of possible values used for Monte Carlo sampling without calibrating models to site specific conditions and the potential to mismatch parameters. Additionally, concerns were raised that the assessment assumed transport directly to the nearest water body without reflecting complexities that are often present and could lead to longer transport pathways or to pathways to water bodies other than the nearest.

Commenters noted that the vicinity of many WMUs is serviced by a municipal water supply, and; therefore, there would be no drinking water receptors associated with these WMUs. Comments were also received that the one mile distance considered by the transport model is not sufficient, because actual receptor wells in many cases are further than one mile from facilities. Comments also highlighted the possibility that modeled receptor well concentrations may incorrectly represent actual

¹³³ U.S. EPA. 2003. *EPA's Composite Model for Leachate Migration with Transformation Products (EPACMTP): Parameters/Data Background Document*. EPA 530-R-03-003. Office of Solid Waste, Washington, DC. April.

¹³⁴ U.S. EPA. 2003. *EPACMTP Technical Background Document*. Office of Solid Waste, Washington, DC.

¹³⁵ U.S. EPA (Environmental Protection Agency). 2003a. *EPA's Composite Model for Leachate Migration with Transformation Products (EPACMTP)*. Technical Background Document. EPA 53-R-03-002. Office of Solid Waste, Washington, DC.

exposures by sampling from a single aquifer depth. Comments on dispersivity noted the need for greater transparency in the report.

Placement of Receptor Wells, EPACMTP Well Inputs and Assumptions:

Comments related to the risk assessment's use of water well distances from MSWLFs and the Agency's belief that these distances would be protective for CCR WMUs. Additional comments focused on the assumption that the wells used in this assessment are contaminated (*i.e.*, located within the plume), even if the well location used reflects a deeper well that may be screened in an uncontaminated aquifer; the manner in which the assessment handles uncontaminated wells, plume characteristics, groundwater-surface water interactions, vertical contaminant concentration across a screened interval in an aquifer; and the values used for plume dispersivity.

EPA RESPONSE: The following is EPA's response broken out by subtopic.

Surface Water Interception Modeling:

In cases where receptor wells are located downgradient from a surface water body that intersects the groundwater table, some or all of the groundwater, along with the mass of constituents contained therein, is intercepted by the water body before it can reach the well. This interception was not modeled in the 2010 Draft Risk Assessment. However, a review of the input database for the 2010 Draft Risk Assessment found that such a water body was present in approximately two-thirds of the Monte Carlo runs. Furthermore, ignoring the loss of constituent mass had the effect of overestimating exposures. Thus, in the revised risk assessment an EPACMTP model post-processor was created to account for surface water interception by removing constituent mass flowing into the water body from the groundwater plume, and leaving only the remaining groundwater available to migrate to a drinking water receptor. The approach used to account for interception is discussed in further detail in Section 4 and appendix J of the revised risk assessment.

While commenters were generally supportive of the proposed approach, some indicated that a meaningful allocation of constituent mass from groundwater into a surface water body required site-specific data. Concerns were raised about the assumption that transport occurred directly to the nearest water body without reflecting complexities that are often present and could lead to longer transport pathways or to pathways to water bodies other

than the nearest. EPA acknowledges that local conditions can make groundwater flow conditions complex, and detailed, local-scale assessments would be required to describe these conditions accurately. While EPA agrees that local-scale conditions must be considered for precise estimation for specific systems, it was impractical for EPA to characterize, simulate, and calibrate models for the numerous locations across the nation. Discussion of the uncertainties associated with this approach has been added to Section 5 of the revised risk assessment.

Several questions about the surface water interception methodology were raised by the public. The qBaseflow input parameter was derived from the NHDplus mean recharge parameter (MEAN_RCHRG)¹³⁶ and the size of the water body catchment and reach (see appendix B of the revised risk assessment). The approach assumes that all streams intersect the shallow aquifer and that all streams either gain water from the aquifer or do not interact with the aquifer at all (for simplicity and conservatism). As the commenter indicates, qNetflow is a key result calculated by subtracting the stream baseflow from the average groundwater flow upgradient of the stream. The qNetflow value becomes the adjusted groundwater flow beyond the stream, reflecting groundwater losses to the stream. One commenter raised a specific question about how the methodology handles cases where qNetflow is less than zero, but greater than the average groundwater flow. This case does not occur with the methodology adopted by EPA, because qNetflow is always equal to or less than the average groundwater flow (*i.e.*, streams are assumed not to be losing). If qNetflow is negative (*i.e.*, a losing stream), all of the groundwater is assumed to migrate to any wells on the opposite side of the stream.

Model Validation/Calibration:

Concern was expressed about the large range of possible values used in the probabilistic analysis for certain parameters and the potential for this to result in a mismatch of input parameters without proper site-specific calibration. EPA notes that the revised risk assessment is not intended to capture the exact risks at each disposal site. Instead, the revised assessment combines the best resolution of site-based, regional and national data available to provide an estimate of potential risks that may occur from current disposal practices. While the assigned data for any given model

iteration may not reflect the exact conditions at a real-world site, the resulting sum of all model iterations reflect the range of potential conditions near each WMU, weighted by prevalence, across the conterminous United States.

Placement of Receptor Wells, EPACMTP Well Inputs and Assumptions:

Comments regarding placement of receptor wells in the probabilistic analysis (also known as the appropriateness of receiving water reaches) are the result of a fundamental misinterpretation regarding the constraints placed on groundwater receptor location to be, as described in the 2010 Draft Risk Assessment, "within the contaminant plume." This constraint is more fully explained in Section 4.4.3.6 of the EPACMTP technical background document.¹³⁷ A citation referring readers to that document has been placed in Section 4 of the revised risk assessment. Because the comment resulted from a misunderstanding, EPA does not believe the sensitivity analysis suggested by the commenter is necessary.

Some commenters were concerned that many residents in the vicinity of some WMUs may be serviced by a municipal water supply. Because these residents would not be exposed to groundwater, the risk assessment could overestimate exposures. EPA acknowledges that there may be a large percentage of the population that does not rely on groundwater as a source of potable water; however, the aim of the risk assessment is to estimate the magnitude of potential risk to the exposed population. Thus, this does not represent a significant source of uncertainty in the risk assessment.

Comments were also received that the one-mile distance considered by the transport model is not sufficient, because actual receptor wells in many cases are further distant than one mile from facilities. EPA conducted a sensitivity analysis, discussed in Section 5 of the revised risk assessment, which indicates that risks beyond the one-mile distance are appreciably lower than risks within one mile. Given that the highly exposed population was adequately captured by a one-mile radius, the significant additional effort required to extend the analysis further downgradient was unjustified.

¹³⁷ U.S. EPA (Environmental Protection Agency). 2003a. *EPA's Composite Model for Leachate Migration with Transformation Products (EPACMTP)*. Technical Background Document. EPA 53-R-03-002. Office of Solid Waste, Washington, DC.

¹³⁶ Available online at: water.usgs.gov/GIS/metadata/usgswrd/XML/nhd_recharge.xml.

With respect to comments related to the placement of wells within deeper aquifers, EPA has a policy of addressing uncertainty by erring in favor of the protection of human health and environmental quality. Consistent with this practice, wells screened within vulnerable, surficial aquifers (*i.e.*, the top 10 meters of the saturated zone) continue to be the primary focus of the Agency's national-scale modeling efforts. Comments also highlighted the possibility that modeled receptor well concentrations may incorrectly represent actual exposures by sampling from a single aquifer depth. Wells are typically screened across an extended depth, and may capture both contaminated and pristine groundwater. Due to the constraints of EPACMTP, EPA maintained the current approach of modeling exposures at a single depth. A discussion of the uncertainties associated with this approach has been added to Section 5 of the revised risk assessment.

In response to comments on the use of MSW landfill data to predict the distance to private wells, EPA did not use the MSW data in the revised risk assessment. Instead, EPA used synthetic population representations of U.S. Census data to place each household and its occupants at discrete points across the landscape surrounding CCR WMUs. Synthetic populations are realistic representations of households and individual residents and their attributes in a given census area, and are based on methods that identify realistic locations within each block by using LandScan 90-meter night-time population distributions to place each household across the landscape.¹³⁸ From these households, a distribution of the distances to the nearest well was created. This approach is discussed in more detail in appendix B of the revised risk assessment. Some commenters suggested that EPA develop site-specific estimates of actual populations around facilities rather than relying on synthetic populations to determine potential receptor locations. The synthetic approach provides the maximum spatial resolution possible for publically available population data from the U.S. Census. More site-specific estimates would be costly, but not necessarily more accurate.

Some commenters were also concerned that the assessment did not consider direct discharges from surface impoundments to surface water. This

pathway was outside the scope of the assessment, because it is regulated by the NPDES program. However, this pathway was evaluated in *Environmental Assessment for the Proposed Effluent Limitation Guidelines and Standards for the Steam Electric Power Generating Point Source Category*,¹³⁹ which will be revised in support of final effluent limitation guidelines due to be released in September of 2015.

2. Comments Related to Source Modeling

COMMENT: The majority of the public commentary in this subcategory was dominated by the assertion that Toxicity Characteristic Leaching Procedure (TCLP), Synthetic Precipitation Leaching Procedure (SPLP) and other laboratory leachate test data are not applicable to CCR wastes. Comments specifically regarding the use of Leaching Environmental Assessment Framework (LEAF) data for modeling leaching behavior noted that the data should be applied appropriately and pointed out the following: (1) That the range of conditions (*i.e.*, range of pH) encompassed by the LEAF data is broader than those conditions found in the field for CCR disposal; (2) high pH limits the mobility of leaching constituents; (3) the need for validating LEAF leachate concentrations against field data if available; and (4) the reliability of the LEAF data is questionable as a result of inconsistencies identified in the LeachXS Lite™ database.

EPA RESPONSE: Only pore water and impoundment water data were used to characterize surface impoundments. Therefore, the comments received on the use of laboratory leachate data are not relevant for the surface impoundment scenario. For landfills, EPA agrees that TCLP, SPLP and other single pH test methods may not be the most appropriate leachate extraction methods for all waste streams and all disposal scenarios. The 2010 Draft Risk Assessment relied on a hierarchy of dissolved concentration data to characterize leaching from landfills, ranging in order of preference from field leachate data to TCLP. However, new data collected using the LEAF test methods have been made available through a series of EPA reports.^{140 141 142}

¹³⁹ U.S. EPA. 2013. *Environmental Assessment for the Proposed Effluent Limitation Guidelines and Standards for the Steam Electric Power Generating Point Source Category*. EPA-821-R-13-003. Office of Water. Washington, DC. 20460. April.

¹⁴⁰ U.S. EPA. 2006. *Characterization of Mercury-Enriched Coal Combustion Residues from Electric Utilities Using Enhanced Sorbents for Mercury*

LEAF were collected with three LEAF methods, specifically:

- SW-846 Method 1313 (and its predecessor, Method SR02);
- SW-846 Method 1314; and
- SW-846 Method 1316 (and its predecessor, Method SR03).¹⁴³

With the availability of the LEAF data, EPA no longer relied on other data sources to model landfills because the inability to identify trends in leaching behavior from single pH tests made it impossible to link these data together with the LEAF data in the probabilistic analysis. The LEAF data provide information on the leaching behavior of CCR for a range of pH values observed in CCR landfills, as well as the liquid-to-solid ratio of the pore water. The data from these three methods were used in conjunction to characterize landfill leaching. While the natural pH range for any individual sample may be narrower than the full range analyzed with the LEAF methods, many facilities burn a range of coal types under varying operating conditions, and co-dispose with other materials, so the range of pH for a specific CCR sample may be exposed to is wider than the pH estimated based on one sample alone.

EPA agrees that appropriate use of the data is needed to ensure that data represent likely conditions of leaching occurring at range of facilities nationwide taking into account local specific environmental conditions, the geometry of monofill, type of coal, air pollution control, and other factors that affect leaching. Since the NODAs were released, a report comparing leachate from field and laboratory analyses has been completed.¹⁴⁴ The report includes the use of geochemical speciation modeling as needed to reflect site-

Control. EPA-600/R-06/008. Prepared by F. Sanchez, R. Keeney, D. Kosson, and R. DeLapp for the U.S. Environmental Protection Agency, Air Pollution Prevention and Control Division. February.

¹⁴¹ U.S. EPA. 2008. *Characterization of Coal Combustion Residues from Electric Utilities Using Wet Scrubbers for Multi-Pollutant Control*. EPA/600/R-08/077. Prepared by F. Sanchez, D. Kosson, R. Keeney, R. DeLapp, L. Turner, and P. Kariher for the U.S. Environmental Protection Agency, Air Pollution Prevention and Control Division. July.

¹⁴² U.S. EPA. 2009. *Characterization of Coal Combustion Residues from Electric Utilities—Leaching and Characterization Data*. EPA-600/R-09/151. Office of Research and Development, National Risk Management Research Laboratory, Research Triangle Park, NC. December.

¹⁴³ Methods SR02 and SR03 are predecessor methods to SW-846 Methods 1313 and 1316.

¹⁴⁴ U.S. EPA. 2014. *Leaching Test Relationships, Laboratory-to-Field Comparisons and Recommendations for Leaching Evaluation using the Leaching Environmental Assessment Framework (LEAF)*. EPA-600/R-14/061. EPA Office of Research and Development, National Risk Management Research Laboratory, Research Triangle Park, NC 27711. November.

¹³⁸ Bhaduri, B., E. Bright, P. Coleman, and M. Urban. 2007. LandScan USA: A high resolution geospatial and temporal modeling approach for population distribution and dynamics. *GeoJournal* 69:103-117.

specific factors affecting leaching, and shows that LEAF methods provide realistic predictions of environmental releases across the range of pH.

All three LEAF methods are summarized in appendix C, with the leachate data provided in Attachment C-5 of the revised risk assessment. Additionally, the inter-laboratory validation for these methods are described in U.S. EPA (2012a, b) ¹⁴⁵ ¹⁴⁶ while Kosson et al. (2002) ¹⁴⁷ provides the detailed test methodology for the predecessor methods, SR02 and SR03. The noted discrepancies and classification errors within LeachXS Lite have been corrected.

COMMENT: Public comments focused on the general relevance of the facility data based on age and noted that newer data should be used to more accurately reflect the current state of CCR management. Related comments cited that the grouping of waste and liner types by facility is not representative of current conditions. Another commenter suggested that the outcomes for different liner types were not comparable and should not be used to make relative conclusions about liner performance. It was also suggested that the assumed three-foot clay layer underlying composite liners is too thick, and two feet would be more representative of current practice. Commenters also described existing management controls required in some geographical locations that mitigate potential risks (e.g., liners, leachate collection) and requested that EPA reflect the existence of those controls in their analysis, as well as mismanagement scenarios when these controls are not in place.

EPA RESPONSE: Since the purpose of the risk assessment was to evaluate risks for the universe of currently operating facilities and WMUs, EPA generally agrees with the commenter that the 1995

EPA and 2006 DOE survey data relied on in the 2010 Draft Risk Assessment may be outdated. Thus, EPA collected data from several new sources of information on the facilities, WMUs, and liners that are present at the time of this analysis. Further discussion of these data sources is available in Section 2 and appendix A of the revised risk assessment.

Regarding the inclusion of mismanagement scenarios, EPA reviewed the high-end pore water concentrations and determined that these data represent actual CCR samples and therefore represent possible high-end risks from current management practices. To better understand which practices may lead to the highest risks, EPA conducted sensitivity analyses that consider the influence of liner type, liner design, waste type and other variables on model results. The results of these analyses are presented in Section 5 of the revised risk assessment.

Several commenters described existing management controls required in some geographical locations that mitigate potential risks (e.g., liners, leachate collection) and requested that EPA reflect the existence of those controls in the final risk analysis. The Agency's analysis reflects the presence of different management scenarios at WMUs to the extent the available data allowed (e.g., WMUs were assumed to have liners if the information indicated such). A key objective of the analysis was to compare the effectiveness of management options (e.g., liners; surface impoundments versus landfills) at preventing potential releases and exposures. Because the population of WMUs considered in the analysis included a range of management controls, the analysis does provide such comparative results between management options. The uncertainties associated with the updated facility, WMU and liner data are discussed in Section 5 of the revised risk assessment.

COMMENT: One commenter suggested that the risk assessment applied risk results for fly ash to bottom ash, FGD sludge, and other CCR wastes, which may result in an incorrect estimate of risks for these other wastes. Other commenters called for EPA to evaluate each CCR waste independently. A public commenter expressed concern about whether the risk assessment adequately considered alternative CCR disposal scenarios. Specifically, it was noted that CCR codisposed with coal refuse generate more acidic conditions (i.e., lower pH) due to higher-levels of sulfide minerals, which may significantly impact the mobility of metals.

EPA RESPONSE: In the revised risk assessment, EPA modeled a combined ash waste types for the majority of surface impoundments and all landfills. Although commenters are correct that different CCR wastes may behave differently when monofilled, the 2009/2010 EPA survey data indicates that the CCR are codisposed in a majority of units. Thus, EPA believes this approach appropriately reflects current disposal practices.

With regard to the evaluation of CCR codisposed with coal refuse, EPA notes that the pore water data used to characterize surface impoundments were broken out separately for this waste type evaluation. These data reflect samples collected in the field and are representative of the pH at which these samples are managed. While some ash and coal refuse samples are highly acidic, others are more neutral or slightly basic (full pH range of 1.7 to 8.2). The development and application of these waste types is discussed in Section 3, Section 4 and appendix H of the revised risk assessment, while the associated uncertainties are discussed in Section 5. For landfills, waste pH, which is the major driver of variations in K_d values used to distinguish waste types, was known with great accuracy for CCR nationwide because U.S. EPA (2009a) ¹⁴⁸ compiled a full, nationwide distribution of CCR pH. In this distribution, disposal of ash with coal refuse is reflected in the acidic tail of the distribution. For the national probabilistic analysis, EPA aggregated model runs for ash and coal refuse (surface impoundments) and acidic waste (landfills) with other wastes so that risks reflected the prevalence of these disposal practices. However, EPA also performed sensitivity analyses to understand the extent that the lower pH of co-managed wastes could affect risks, which is discussed in Section 5 of the revised risk assessment.

COMMENT: Commenters stated that it is unclear why EPA chose to approximate infiltration through composite liner systems based on leak detection system flow rates from industrial landfills that use a different construction design than projected for CCR landfills.

EPA RESPONSE: The composite liner leakage rates used for this risk assessment correspond to leakage rates developed for the peer-reviewed Industrial Waste Management

¹⁴⁵ U.S. EPA. 2012. *Interlaboratory Validation of the Leaching Environmental Assessment Framework (LEAF) Method 1314 and Method 1315*. EPA/600/R-12/624. Prepared by A.C. Garrabrants, D.S. Kosson, R. DeLapp, P. Kariher, P.F.A.B. Seignette, H.A. van der Sloot, L. Stefanski, and M. Baldwin for the U.S. EPA Office of Research and Development, Air Pollution Control Division. September.

¹⁴⁶ U.S. EPA. 2012b. *Interlaboratory Validation of the Leaching Environmental Assessment Framework (LEAF) Method 1313 and Method 1316*. EPA/600/R-12/623. Prepared by A.C. Garrabrants, D.S. Kosson, L. Sefanski, R. DeLapp, P.F.A.B. Seignette, H.A. van der Sloot, P. Kariher, and M. Baldwin for the U.S. EPA Office of Research and Development, Air Pollution Control Division. September.

¹⁴⁷ Kosson, D.S., H.A. van der Sloot, F. Sanchez and A.C. Garrabrants. 2002. An integrated framework for evaluating leaching in waste management and utilization of secondary materials. *Environmental Engineering Science* 19(3):159-204.

¹⁴⁸ U.S. EPA. 2009. *Characterization of Coal Combustion Residues from Electric Utilities—Leaching and Characterization Data*. EPA-600/R-09/151. Office of Research and Development, National Risk Management Research Laboratory, Research Triangle Park, NC. December.

Evaluation Model (IWEM).¹⁴⁹ The types of synthetic liners used are likely to be the same, regardless of the type of waste present. EPA is unaware of any factors specific to CCR that would exacerbate leakage rates, nor did the commenter provide any. Thus, in the absence of any information to the contrary, EPA finds these to be the best available data.

Because there is currently no approach for differentiating between flow from unimpacted water released by the consolidation of clay and from contaminated leakage through the liner, EPA excluded data on the subset of composite liners constructed with natural clay from the distribution of composite liner leakage rates. EPA did consider the potential impact of incorporating these additional data into the risk assessment as part of sensitivity analysis, presented in Section 5 of the revised risk assessment.

COMMENT: Concerning the treatment of non-detect values in the risk assessment, one commenter recognized that the use of one half the detection limit in calculations has become an accepted protocol. However, it was suggested that this approach may not be appropriate in all cases, and that newer or more straightforward methods can be applied to improve precision and minimize biasing of the dataset. Another commenter noted that mercury was excluded from the analysis due to the high number of non-detects.

EPA RESPONSE: Additional constituent data measured with lower detection limits have been made available to EPA since completion of the 2010 Draft Risk Assessment. However, the overall CCR constituent database still contains a large number of non-detect data for some constituents. EPA continues to incorporate all available with the use half the reported detection limit as the most appropriate method to account for these non-detects. The commenter is correct that much of the pre-2010 mercury data has high detection limits and a large proportion of non-detects. In this one instance, EPA relied only on the newer data made available to the Agency since the 2010 Risk Assessment, which was collected through newer methods with significantly lower detection limits. A more detailed rationale for this approach is provided in Section 3 of the revised risk assessment, along with further discussion of the uncertainty in Section 5.

COMMENT: Comments received related to the effect of waste compaction in landfills focused on changes to hydrologic properties of waste materials, such as porosity and hydraulic conductivity. These changes may result from compaction, consolidation, hydration or geochemical changes, and have the potential to result in either an underestimation or overestimation of risks.

EPA RESPONSE: EPA acknowledges that the landfill source model does not consider the compaction of CCR waste that may occur over time as a result of anthropogenic activities, gravity or infiltrating water. However, no data on either the rate or degree to which these processes may occur were provided by commenters or identified elsewhere. EPA considered the impacts of this uncertainty in Section 5 of the revised risk assessment.

COMMENT: Public comments focused on assumptions relating to the variability of unlined landfill design, landfill clay liner materials, and construction of landfill cover materials and construction. Specific comments emphasized that the clay liner and cover thickness assumptions (three feet) were too conservative and not conservative enough, respectively. Commenters also questioned why composite covers and leachate collection systems were not considered for clay-lined landfills. Additionally, commenters stated that there was a high degree of variability in the material and design and construction for unlined landfills that was not accounted for in the HELP modeling. One commenter also pointed out that the assessment may overestimate percolation rates from landfills by underestimating the use of engineering controls. In addition, a commenter stated that the assessment assumes that States will require liners in all cases which may not be the case, thereby weakening the regulation.

EPA RESPONSE: For both unlined and clay-lined landfills, EPA used Hydrologic Evaluation of Landfill Performance (HELP) model-derived infiltration rates. These infiltration rates assume that the cap placed on top of the landfill at the end of its useful life will remain intact for the duration of the risk assessment, up to a maximum 10,000 years of modeling. A commenter pointed out that hydraulic conductivity of a clay liner is likely to increase by orders of magnitude due to desiccation resulting from natural temperature cycles. Additionally, commenters stated that there was a high degree of variability in the material and design and construction for unlined landfills that was not accounted for in the HELP

modeling. EPA has adopted the use of the HELP model, which was subject to both peer and administrative review, as the source of unlined and clay-lined infiltration rates for landfill for nearly two decades. EPA acknowledges that there are limitations in using HELP. However, the model has been tested and verified as discussed in the EPACMTP Parameter/Data Background Document.¹⁵⁰ To the extent that the performance of the cap will decrease over time, EPA acknowledges that unlined and clay-lined infiltration rates calculated by HELP may be underestimated, however the degree of that underestimate is unknown. Discussion of this uncertainty has been added to Section 5 of the revised risk assessment.

COMMENT: One commenter expressed concern over the fact that the assessment modeled all disposal sites above the water table. The commenter indicated that many surface impoundments and landfills are deep and can come in direct contact with the water table. This will result in an underestimation of peak concentrations, arrival times and risks for these WMUs. Furthermore, the commenter emphasized that the use of the unsaturated zone flow module to calculate infiltration from the bottom of impoundments underestimates true risks in the consolidated sediment, and noted that clogged soil layers should be treated as saturated rather than unsaturated.

EPA RESPONSE: EPA acknowledges that EPACMTP is not designed to handle scenarios where the water table is above the bottom of the landfill. However, EPACMTP can accommodate surface impoundments in direct contact with the water table. If unit geometry and the selected depth to the water table create a scenario where the bottom of the unit is in contact with the water table, then the entire soil column is considered saturated. Otherwise, even for very high infiltration rates, regions beneath impoundments will remain partially saturated when there is sufficient distance between the unit and the water table. EPA has added a discussion of the uncertainties associated with WMU source terms and EPACMTP in Section 5 of the revised risk assessment.

EPA believes the commenter misunderstood how the sediments were modeled for surface impoundments. The EPACMTP unsaturated zone

¹⁴⁹ U.S. EPA. 2002. *Industrial Waste Management Evaluation Model (IWEM) Technical Background Document*. EPA530-R-02-012. Office of Solid Waste, Washington, DC. August.

¹⁵⁰ U.S. EPA. 2003. *EPA's Composite Model for Leachate Migration with Transformation Products (EPACMTP): Parameters/Data Background Document*. EPA 530-R-03-003. Office of Solid Waste, Washington, DC. April.

module assumes that the 0.2 m of consolidated sediments at the bottom of a surface impoundment are always saturated whereas the 0.5 m of clogged native soil are assumed to be unsaturated when the bottom of the surface impoundment is above the water table.

COMMENT: Public commenters recommended that EPA address the future increase in mercury and NO_x compounds levels in CCR that will result from mercury capture from flue gas under new emission control regulations. Commentary pointed out that the recent Vanderbilt study should provide data that could be used to expand the risk assessment in this area.

EPA RESPONSE: The risk assessment was designed to evaluate the risks associated with current management practices and, as such, draws no conclusions about the potential for future air pollution technologies to alter the composition or leaching behavior of CCR wastes. However, it has been shown that newer mercury pollution control technologies currently in place have the potential to affect leaching behavior.^{151 152 153} Thus, EPA conducted a sensitivity analysis to evaluate the risks associated with existing units that dispose of this waste; however, the data were too few to allow EPA to draw conclusions about the effect of pollution control technologies on the risks. This sensitivity analysis is presented in Section 5 of the revised risk assessment.

COMMENT: Multiple public commenters noted that additional pore water will improve the risk assessment, but TCLP and SPLP data are not appropriate for use as source concentrations. Additionally, commenters stated that EPA applies the LEAF data to pH conditions that are not realistic to CCR disposal scenarios. Although LEAF provides a more representative and scientifically sound approach, it must be correctly adapted. Alternative statistical methods to

represent the input data as a range is certainly feasible and could enhance the risk assessment if the range of data is used as an input to the risk assessment.

Commenters agree that the LEAF data does provide useful information, but point out that it is associated with the potential for leaching and does not represent actual leaching of a specific CCR under actual field conditions. Commenters argue that field leaching data should not be mixed with laboratory data, and that EPA's field leachate dataset (for landfills and impoundments) is not adequate for use in the CCR risk assessment. Specific efforts recommended to properly utilize the LEAF data include: Use of probability density functions for leachate concentrations based on pH and/or L/S ratios in the Monte Carlo process; selection of leachate concentrations based on pH and L/S and tied to the geographic location of the WMU and CCR type; and geochemical modeling to incorporate reactions once leachate impacts groundwater.

A few commenters pointed out that the pore water data are generally representative, although concerns were raised about the highest arsenic concentration (81 mg/L) in the dataset. One commenter believed that although the addition of new data is an improvement, EPA could greatly improve the accuracy of the model's results by removing the extreme and unsubstantiated outlier data driving its high risk cases. Another commenter believed the assumption that concentration of contaminants in the sediment pores (applicable to a post closure scenario) would be equal to the concentration assigned to in the impoundment water would result in underestimated risks. Additionally, commenters noted that EPA should classify the data according to CCR type and coal type.

Overall, commenters support updates to the pore water data and the use of statistical method to normalize the data curve. However, one commenter noted that EPA should not use commenter-submitted CCR pore water data unless it meets requisite applicable data quality requirements. Another commenter stated that EPA needs to provide better clarity on these solicited comments (on the use of older pore water data) and provide these documents in the docket. Without these documents, the reader does not have a complete understanding of co-managed material containing CCR. Another comment noted that properly collected field pore water (freely draining) samples should take priority over any of the laboratory generated data and freely draining pore water is

more representative of leachate releases than tightly held pore water.

EPA RESPONSE: The use of pore water data is still considered the most appropriate approach to estimate constituent fluxes to groundwater for CCR surface impoundments. This is because pore water better represents the leachate seeping from the bottom of the impoundment than impoundment water samples. EPA did not use available LEAF data for surface impoundments because a national distribution of pH was not available to allow the Agency to probabilistically assign LEAF concentrations to these units, and because there was no way to account for partitioning of the leachate into wastewater versus porewater. Thus, EPA has continued to rely on pore water data, supplemented with data from the 2010 comments. EPA appreciates commenter support on the use of pore water data and statistical methods for data analysis for surface impoundments. EPA agrees that data available for minefill sites may not be representative of disposal in surface impoundments. Thus, these data were not considered in the revised risk assessment. The specific handling of pore water concentration data with site quartiles, rather than site averages, is discussed in Section 4 and Section 5 of the revised risk assessment report.

EPA agrees that TCLP and SPLP data are less appropriate for CCR disposal scenarios and no longer uses these data in the revised risk assessment. EPA adapted the LEAF methods and data for landfills, as this is the best available approach and data to represent CCR landfill leachates, and does not mix or use field data with LEAF laboratory results for landfill leachate. The LEAF data are considered the most robust and technically defensible data available. As noted in the 2010 Environmental Science and Technology publication,¹⁵⁴ the data represents the largest collection of comprehensive characteristic leaching data to date.

A commenter noted that the LEAF data provide the potential for leaching and not actual leaching of a specific CCR under actual field conditions. The commenter suggests using probability distribution of key factors affecting leaching behavior [*i.e.*, pH and liquid/solid ratio (L/S)] and site specific data tied to the geographic location of the management unit and the type of CCR being managed. In the revised risk assessment, pH is expressed as a

¹⁵¹ U.S. EPA. 2006. *Characterization of Mercury-Enriched Coal Combustion Residues from Electric Utilities Using Enhanced Sorbents for Mercury Control*. EPA-600/R-06/008. Prepared by F. Sanchez, R. Keeney, D. Kosson, and R. DeLapp for the U.S. Environmental Protection Agency, Air Pollution Prevention and Control Division. February.

¹⁵² U.S. EPA. 2008. *Characterization of Coal Combustion Residues from Electric Utilities Using Wet Scrubbers for Multi-Pollutant Control*. EPA/600/R-08/077. Prepared by F. Sanchez, D. Kosson, R. Keeney, R. DeLapp, L. Turner, and P. Kariher for the U.S. Environmental Protection Agency, Air Pollution Prevention and Control Division. July.

¹⁵³ U.S. EPA. 2009. *Characterization of Coal Combustion Residues from Electric Utilities—Leaching and Characterization Data*. EPA-600/R-09/151. Office of Research and Development, National Risk Management Research Laboratory, Research Triangle Park, NC. December.

¹⁵⁴ Thorneloe, S., D. Kosson, F. Sanchez, A. Garrabrants, and G. Helms. 2010. Evaluating the Fate of Metals in Air Pollution Control Residues from Coal-Fired Power Plants. *Environ. Sci. Technol.* 44:7351–7356.

national distribution for selecting leachate concentrations developed to represent CCR nationally, and L/S is considered in estimating washout leachate concentrations based on field data observations. The use of the pH distribution developed in U.S. EPA (2009)¹⁵⁵ does capture the range of potential variability in pH conditions at CCR sites nationwide and is the best approach possible given the current availability of information on site-specific coal ash chemistry. Although leachate concentrations were selected considering pH and L/S conditions that are nationally representative, EPA does not have the detailed and extensive site-specific measurements that would be needed to tie CCR and leachate concentrations to specific WMU locations. Instead, EPA adopted a national probabilistic approach that is site-based and representative of risks to human and ecological health across the country. The revised risk assessment also provides details regarding how the LEAF data are used in combination of geographical specific data such as hydrology, precipitation, fill configuration, CCR type, pH, L/S ratio, and other factors that take the leaching potential as an input to fate and transport models accounting for attenuation and dilution. Additionally, an effort was made to collect CCR samples that characterize the range and quantity of coal usage in the U.S. along with likely air pollution control configurations. While the data is not statistically representative on a site-specific basis, it is adequate to identify trends in leaching behavior that relate to differences in materials types, APC technology, and coal rank. Geochemical speciation modeling was not conducted because the source term as measured and interpreted is conservative, provided that oxidizing conditions occur.

Regarding the number and concentration of pore water samples, EPA reviewed the high-end pore water concentrations and determined that these represent actual CCR samples that therefore represent possible high-end risks if CCR is inadequately regulated and managed. EPA recognizes that more pore water data would potentially improve the representativeness of the dataset, but is convinced that the current dataset adequately captures the possible high end risks that are of most interest in the rulemaking, including

risks from the mismanagement of CCR through codisposal with coal refuse.

The assumption that saturated contaminant concentrations in surface impoundment sediments are at equilibrium with the impoundment waters is a conservative assumption that is unlikely to significantly underestimate risks. This assumption is further discussed in Section 5 of the revised risk assessment report.

Regarding commenter-submitted pore water data, EPA conducted a review of the additional datasets provided by the commenters with respect to relevance and data quality. Based on the available information, EPA determined that the selected datasets were relevant and acceptable in terms of data quality requirements. However, EPA does not have sufficient data to distinguish between freely draining and tightly bound pore water data at this time. Overall, EPA agrees that the use of these data introduces some uncertainty into the analysis, which is discussed in Section 5 of the revised risk assessment.

COMMENT: One commenter questioned the assumption that there will be no net addition of waste into a surface impoundment during and after the operational life, noting that impoundments are frequently deepened. Additionally, many surface impoundment wastes are left in place at the time of closure, so that the waste behaves more as a landfill than a surface impoundment (and increasingly, with new landfills being constructed on top of previous surface impoundments). Another commenter questioned why the conceptual model assumes that impoundments are always full during their operating life, which overestimates releases to the subsurface. Additionally, a commenter noted that the assumption of only 0.2 m of sediment accumulation underestimates the amount of sedimentation and subsequently overestimates the amount of percolation to the subsurface. The commenter stated that in actual operation, ash thickness can increase up to 30 feet or more, eventually filling the impoundment, which results in a significant decrease in percolation through the base. Furthermore, the commenter questioned the assumption that post-closure percolation continues at the same rate as during active operations.

EPA RESPONSE: Based on the 2009/2010 EPA surveys, it was assumed that the majority of the surface impoundments are storage impoundments, which are continuously dredged. Because these facilities have other units (whether onsite or offsite) established for disposition, it likely that the majority of waste in the dredged

impoundments would be removed by the end of the unit's operating life. Regardless, an uncertainty analysis provided in appendix K demonstrates that the risks during the operating life of surface impoundments are greater because the higher hydraulic head drives leachate into underlying soils with greater force than gravity alone post-closure. Therefore, EPA did not explicitly model the post-closure phase of surface impoundments. The uncertainties resulting from this decision are discussed in Section 5 of the revised risk assessment.

EPA acknowledges that EPACMTP is restricted to modeling flow as steady state with the assumption that an impoundment always has a fixed depth of wastewater. EPA further acknowledges that such an assumption may overestimate infiltration. The surface impoundment conceptual model assumes that sediments are periodically dredged and removed and that the long-term average thickness of the sediment is approximately 0.4 m, with half of that layer consolidated. EPA has used EPACMTP and its predecessor model versions for a longstanding time period and it has undergone multiple rounds of internal and external review. The reviews associated with EPACMTP and its limitations are further discussed in Section 5 of the revised risk assessment report.

COMMENT: Public commenters suggested that risks from operating landfills should be considered along with those that occur post-closure. These commenters questioned whether greater risks may occur during site operations when wastes are uncovered and exposed directly to precipitation. Additional commenters noted that complete leaching of all constituent mass at a constant concentration is overly conservative.

EPA RESPONSE: The landfill source model used in this risk assessment is not able to address landfills during operation because the non-linear sorption isotherms used require a constant, annualized infiltration rate throughout the duration of leaching. Instead, the revised risk assessment assumed that the full footprint of the landfill is filled to capacity with a cap no less permeable than the soil or liner underlying the WMU is present at the start of leaching. EPA acknowledges that this approach introduces some uncertainty into the analysis, the potential impacts of which are discussed in Section 5 of the revised risk assessment.

With respect to comments that complete leaching of all constituent mass is overly conservative, EPA now

¹⁵⁵ U.S. EPA. 2009. *Characterization of Coal Combustion Residues from Electric Utilities—Leaching and Characterization Data*. EPA-600/R-09/151. Office of Research and Development, National Risk Management Research Laboratory, Research Triangle Park, NC. December.

models landfills using leachable mass as discussed in Section 4 and appendix C of the revised risk assessment.

Alternatively, EPA presents a sensitivity analysis of these results compared with the results generated using total mass in Section 5.

3. Comments Related to Exposure Scenarios

COMMENT: The commenter emphasized that the risk assessment does not consider direct discharges to ground and surface water systems other than groundwater infiltration (e.g., direct injection to groundwater, point and nonpoint discharges to surface water systems). It was recommended that EPA consider combining contributions from these sources with CCR groundwater leaching impacts to calculate the full load of CCR constituents to groundwater and surface water systems. The commenter continues by suggesting that the use of liners in impoundments does not reduce overall hazards if direct discharges are considered in the risk assessment.

EPA RESPONSE: RCRA waste disposal risk assessments do not address direct discharges from impoundments to surface waters because they are regulated as permitted point source discharges under the Clean Water Act by EPA's Office of Water. Since this pathway is outside the scope of the risk assessment, the revised risk assessment does not consider these releases. However, this pathway was evaluated in the Environmental Assessment for the Proposed Effluent Limitation Guidelines and Standards for the Steam Electric Power Generating Point Source Category,¹⁵⁶ which will be revised in support of final effluent limitation guidelines (ELG) due to be released in September of 2015. The revised risk assessment was updated to note this fact.

EPA is not aware of any CCR disposal where waste is directly injected into groundwater aquifers, and absent any data on this practice declines to evaluate it.

COMMENT: Public comments were received on the methodology applied to evaluate exposure to fugitive dust during landfill operations (before closure). The majority of these comments focused on the fugitive analysis as presented in *Inhalation of Fugitive Dust: A Screening Assessment of the Risks Posed by Coal Combustion*

¹⁵⁶ U.S. EPA. 2013. Environmental Assessment for the Proposed Effluent Limitation Guidelines and Standards for the Steam Electric Power Generating Point Source Category. EPA-821-R-13-003. Office of Water. Washington, DC 20460. April.

Waste Landfills,¹⁵⁷ and EPA's proposed approach for refining the analysis. Comments received on the initial fugitive dust analysis methodology and modeling ranged from emphasizing that the approach was overly conservative in some cases to underestimating risk in other cases.

Multiple comments were provided on the proposed methodology for refining the fugitive dust analysis that was applied in the revised risk assessment. One commenter recommended that 2010/2011 EPA survey data should be used to refine the fugitive dust analysis for landfills. Specifically, the current OW data indicate that active portions of the landfills are significantly smaller than the landfills identified in the 1995 EPRI survey. Several comments were received that pointed out that the application of AERSCREEN and AERMOD is appropriate if representative or realistic inputs are used including meteorological data, material silt content, source areas for subcells of ash management units and consideration of common operating and control practices, which are in some cases defined by the states (e.g., Virginia). However, one commenter expressed concern that no previous or current EPA regulatory model; including SCREEN3, AERSCREEN or AERMOD; has been rigorously tested and evaluated for performance in modeling fugitive emissions associated with CCR landfills.

In general, the commenters supported or recommended the use of appropriate AP-42 factors and other techniques to estimate emissions. Others noted that consideration of deposition impacts and constituent-specific modeling is appropriate. One commenter recommended that EPA should conduct a full-scale assessment that considers fugitive dust as well as emissions from landfills and emissions of diesel particulate matter from haul trucks, on-site heavy-duty landfill equipment, and diesel-powered pumps and generators, with potential receptors of interest as residents and sensitive subpopulations living near the power plant, along the transportation route and at the landfill. Another commenter expressed concern over the lack of metal speciation data, while another comment concerned gas emissions from the landfills (e.g., hydrogen sulfide). One final commenter voiced concern that insufficient information was provided on the modeling approach and the model

¹⁵⁷ U.S. EPA. 2010. *Inhalation of Fugitive Dust: A Screening Assessment of the Risks Posed by Coal Combustion Waste Landfills*. OSWER. Washington, DC. September.

inputs to support evaluation and allow comments on the overall validity or propriety of the suggested modeling.

EPA RESPONSE: The majority of the comments received concerning exposures during landfill operation (before closure) focused on the assessment of fugitive dust. EPA acknowledges that the 2010 Draft Risk Assessment did not evaluate the inhalation pathway, relying instead on the findings of a previous evaluation, *Inhalation of Fugitive Dust: A Screening Assessment of the Risks Posed by Coal Combustion Waste Landfills*.¹⁵⁸ This previous evaluation only considered releases from windblown emissions and the potential to exceed national ambient air quality standards (NAAQS) for particulate matter.

Based on the comments received, EPA updated the screening analysis of fugitive dust. EPA agrees that there are potential risks posed by fugitive emissions from sources beyond wind and revised the analysis to consider emissions from a range of activities, such as vehicular activity, unloading operations and spreading/compacting operations. Emissions from these sources were calculated using techniques that have undergone extensive peer-review, including AP-42: *Compilation of Air Pollutant Emission Factors*.¹⁵⁹ Screening level modeling was performed with a combination of AERSCREEN and AERMOD to estimate dust dispersion and deposition rates. Model inputs were selected to be representative of current landfills, environmental settings (e.g., meteorological conditions) and common dust management practices. Estimated air concentrations were used to screen acute and chronic health risks from inhalation, as well as the potential to exceed NAAQS standards. Furthermore, EPA considered exposures that may result from the offsite deposition on and accumulation in downgradient media. This was done for all relevant metal species. In contrast, EPA did not evaluate emissions of hydrogen sulfide to air as EPA has no data on the extent to which this constituent is present in CCR or released into the surrounding environment. Further discussion of this screening analysis is presented in

¹⁵⁸ U.S. EPA. 2010. *Inhalation of Fugitive Dust: A Screening Assessment of the Risks Posed by Coal Combustion Waste Landfills*. OSWER. Washington, DC. September.

¹⁵⁹ U.S. EPA. 1985. *Compilation of Air Pollutant Emission Factors. Volume I: Stationary Point and Area Sources (Fourth Edition)*. AP-42. U.S. Environmental Protection Agency, Office of Air and Radiation and Office of Air Quality Planning and Standards, Research Triangle Park, NC. September.

Section 3 and appendix F of the revised risk assessment.

COMMENT: Comments both supported and disagreed with the appropriateness of a screening analysis to eliminate pathways from consideration in the full-scale probabilistic analysis. One commenter pointed out that the EPA conducted a very conservative, but appropriate, screen to identify constituents to include in the full-scale probabilistic analysis. Another commenter emphasized that a full-scale risk assessment should be conducted that assesses exposures concurrently through all pathways (e.g., including surface pathways with inhalation exposure) for all chemical constituents. In particular, they emphasized that inhalation exposures to human carcinogens, such as hexavalent chromium, as well as noncarcinogens may occur through the aboveground pathway. Although the commenters disagreed over the use of a screening approach, both expressed concerns over the use of risk attenuation factors to scale screening risks to the full-scale risks for the subset of constituents that did not pass the screen and were not evaluated under the full scale assessment. Both commenters believe that this approach ignores the unique fate and transport properties of the omitted constituents and that the use of a simplistic, attenuation factor is not an appropriate way to estimate risk.

EPA RESPONSE: By first conducting the screening analysis presented in Section 3 of the revised risk assessment, EPA was able to focus available resources on the characterization of risks for exposure routes and constituents with the greatest potential to pose risks. The screening analysis conducted for the revised risk assessment considered all of the potential exposure routes identified in the conceptual models for surface impoundments and landfills, which included aboveground exposures to ambient air, soil, sediment, produce, and animal products. Each exposure pathway was evaluated for all constituents (and individual species, as appropriate) for which both concentration and toxicity data were available.

The screening analysis was developed to be protective of highly exposed individuals. Due to the conservative nature of the screening, the calculated risks represent a protective, but unlikely, combination of conditions that most likely reflect an upper bound on potential exposures for each individual constituent. The revised screening assessment did not rely on risk attenuation factors to screen out

constituents. All constituents that resulted in screening-level risks above human health or ecological criteria, and for which characterization of fate and transport could be refined, were carried forward for further consideration in the probabilistic analysis, described in Section 4 of the revised risk assessment. It is possible that consideration of exposure to multiple constituents through a single pathway or to the same constituent through multiple pathways may have resulted in the retention of some additional constituents. However, it is highly unlikely that these additional constituents would remain risk drivers once more realistic dilution and attenuation in the environment is considered.

COMMENT: Multiple commenters noted that there may be additional constituents present in CCR wastes beyond those quantitatively evaluated in the risk assessment. In particular, multiple commenters referenced organics and radionuclides. Some commenters called on EPA to quantify the risks associated with these additional constituents. Others claimed that these constituents are present in low levels and do not pose risk to receptors.

EPA RESPONSE: In the *Report to Congress: Wastes from the Combustion of Fossil Fuels: Volume 2—Methods, Findings, and Recommendations*,¹⁶⁰ EPA reviewed the available data on organic constituents, such as polyaromatic hydrocarbons and dioxins. These data indicated that concentrations of all organics are near or below analytical detection limits both in CCR and in the leachate released from CCR. Based on the findings of this report, the Agency concluded that organic constituents were not risk drivers and did not require further evaluation. In the absence of additional data that demonstrate the organic composition of CCR wastes have markedly changed, EPA continues to rely on these findings.

EPA acknowledges that, like other inorganic constituents, naturally-occurring radionuclides may be concentrated in CCR waste through the combustion of coal. However, due to a lack of data that could be used to characterize leachate concentrations for individual radionuclides, a quantitative evaluation of risk was not conducted. To address this data gap, EPA has included radionuclides in the list of constituents for groundwater

¹⁶⁰ U.S. EPA (Environmental Protection Agency). 1999b. Report to Congress: Wastes from the Combustion of Fossil Fuels: Volume 2—Methods, Findings, and Recommendations (EPA 530-R-99-010). Office of Solid Waste and Emergency Response. Washington, DC.

monitoring. Furthermore, potential transport of these constituents downgradient by windblown dust and storm run-off are addressed through requirements for fugitive dust controls and run-on/run-off controls.

4. Comments Related to Human Exposure and Toxicity

COMMENT: Some commenters argued that EPA underestimated risks by not considering combined chemical effects, additive risk and concurrent exposures through multiple pathways. One commenter indicated that EPA should conduct a full scale assessment that considers concurrent exposure from ingestion of fish and groundwater. Commenters also raised concerns that some chemical constituents share a common mechanism of toxicity and may affect the same body organ or system, resulting in greater risks than predicted through the consideration of each constituent separately.

One commenter noted that the combination of risks from different constituents would not change the overall results of the risk assessment. Constituents concentrations found to result in an HQ less than 1 in the screening analysis are unlikely to make a meaningful contribution to overall risk regardless of whether multiple compounds share the same toxicological endpoints. Additionally, the commenter expressed that it would be inappropriate to add the risks from different constituents as modeled because the constituents do not all arrive at a hypothetical receptor at the same time, due to differing mobility in the subsurface environment.

EPA RESPONSE: EPA acknowledges that this risk assessment considered potential risks to human health from individual constituents and individual pathways. EPA acknowledges that not explicitly evaluating cumulative risk is a source of uncertainty that may result in some underestimation of risks. It is possible that an individual could be exposed to risks from drinking contaminated groundwater, as well as eating contaminated fish from a local surface water body, but it is unlikely that these two exposure pathways would occur simultaneously with any appreciable frequency in the real world. It is even more unlikely that a receptor would be exposed to both media at the high-end concentrations modeled. Therefore, the magnitude of the uncertainty introduced into the risk assessment is likely to be small. It is also possible for an individual to be exposed to multiple constituents through a single pathway. This is a more likely scenario because, as demonstrated

by the available data, CCR typically leach multiple inorganic constituents. Where exposure to multiple constituents is likely to occur, EPA policy is to assume that the risks resulting from these exposures are additive.¹⁶¹ The current probabilistic analysis identified individual constituents above risk criteria. Many of the other constituents modeled resulted in risks an order of magnitude or more below risk criteria. Thus, the consideration of additive risk, even with the high-end risks modeled in this risk assessment, is unlikely alter the principal results of the probabilistic analysis. Similarly, because the risks for individual constituents were found to be above levels of concern, consideration of additive risk is unlikely to meaningfully change the results of the analysis. EPA updated the revised risk assessment to include a discussion of the associated uncertainties in Section 5.

COMMENT: Some commenters identified incorrect and inconsistent reporting of toxicity benchmark values and recommended conducting a thorough review of literature to ensure the use of the most current values were used. One commenter expressed concern over the use of the current IRIS value for arsenic carcinogenic effects and believes it underestimates risk. Other commenters emphasized that it would be inappropriate for EPA to consider using the draft oral cancer slope factor (CSF) for arsenic and the oral CSF for hexavalent chromium [chromium (VI)] published by the New Jersey Department of Environmental Protection (NJDEP). Concerning lead, one commenter supported a peer reviewer's recommendation to use the Integrated Exposure Uptake Biokinetic (IEUBK) model to calculate human health risks, especially for young children. Additionally, a commenter requested chemical-specific information on toxicity criteria derivation, as well as information on the relationship between environmental exposures to specific chemicals and adverse health effects. The commenter emphasized that this information would provide an uncertainty discussion regarding toxicity values, facilitate communication with the public, and provide a balanced perspective on risk.

EPA RESPONSE: Human health benchmarks were chosen based on the Office of Solid Waste and Emergency Response hierarchy (OSWER Directive

9285.7–53).¹⁶² EPA reviewed the benchmarks to confirm their accuracy and determine whether newer values have become available from EPA or other sources used by EPA since the CCR draft risk assessment was conducted. The current, updated list of human health benchmarks is provided in appendix E of the revised risk assessment, and the references cited in that appendix provide further information on the potential adverse effects and derivation of toxicity criteria.

For lead, EPA used the drinking water maximum contaminant level (MCL) to estimate risks from drinking water exposure in the draft risk assessment. In the revised risk assessment EPA continued to rely on the MCL, but also used IEUBK model for lead in children as described in Section 5 of the revised risk assessment. While lead failed the screening assessment, risks from lead exposure in the probabilistic assessment were well below the risk criterion, and did not drive risks in either the probabilistic or any sensitivity analyses.

COMMENT: The commenters questioned why the cancer benchmark of 1×10^{-5} was selected while the typical range used by OSWER and EPA guidance is a range from 1×10^{-4} to 1×10^{-6} . The commenters suggested that an explanation is necessary. In particular, one commenter requests clarification on the phrase “point of departure” when supporting the use of the cancer benchmark of 1×10^{-5} . Concerning non-cancer criteria, a commenter suggested that non-cancer risks should be report as follows: Worst Case—Assume maximum exposure scenarios including exposure 24-hours/day, 365 days/year for 70 years; High End—95th percentile based on national human activity pattern distributions; Central Tendency—50th percentile (or median) risk based on national human activity pattern distributions. Furthermore, another commenter believed that it is more appropriate to consider 95th percentiles, rather than 90th percentile, of exposure and risk estimates for humans and ecological receptors.

EPA RESPONSE: The rationale for the selected cancer and non-cancer risk criteria, based on Agency policy, is discussed in Section 2 of the revised risk assessment. A citation to the where “point of departure” was originally defined is provided for reference. The rationale for use of 90th percentile risk

generated by a Monte Carlo simulation is discussed in Section 4 of the revised risk assessment.

COMMENT: Commenters questioned the evaluation of only the reasonable maximum exposure scenario. Specifically, it was noted that the receptor placement downgradient of an unlined management unit does not represent the entire population exposure distribution. One commenter suggested that EPA clearly define the exposed population of interest.

EPA RESPONSE: In risk assessments used to develop regulations under RCRA, EPA has historically assessed potential risks resulting from a reasonable maximum exposure (RME) scenario in order to ensure that the resulting regulation is adequately protective of human health without being excessively conservative. The types of data necessary to define the exact population that relied on groundwater wells as a source of drinking water or consumes fish from impacted water bodies are not available. EPA believes that consideration of RME is a reasonable and protective alternative, given the available data. Uncertainties associated with the revised risk assessment are further discussed in Section 5 of the revised risk assessment.

COMMENT: The commenters questioned the use of data from the 1997 Exposure Factors Handbook in the development of intake rate distributions for various exposures, because more current data are currently available. Commenters recommended that EPA make updates to these parameters using more current sources of information, including the recently released 2011 Exposure Factors Handbook.¹⁶³ In addition, some commenters pointed out the potential for the available exposure factor data to underestimate or overestimate exposures. One commenter noted that the risk assessment did not fully account for the dependence of input variables (e.g., the interdependence of body weight and water ingestion rates for children and link between the rate of fish consumed from a water body). Another commenter suggested that a sensitivity analysis of human health exposure factors be conducted to add to the sensitivity analysis conducted by EPA in 2009.

Regarding fish consumption rates, commenters questioned the representativeness of a fixed fish consumption rate drawn from a single

¹⁶¹ U.S. EPA. 2000. *Supplementary Guidance for Conducting Health Risk Assessment of Chemical Mixtures*. Risk Assessment Forum, Washington, DC. August.

¹⁶² U.S. EPA. 2003. *Human Health Toxicity Values in Superfund Risk Assessments*. Office of Solid Waste and Emergency Response Directive 9285.7–53. December.

¹⁶³ U.S. EPA. 2011. *Exposure Factors Handbook: 2011 Edition*. EPA/600/R–090/052F. National Center for Environmental Assessment, Office of Research and Development, Washington, DC. September.

study. It was suggested for transparency that the risk assessment provide the results of the chi-square tests to demonstrate how well the fish consumption rate data fit a log normal distribution. Additionally, it was suggested that fish consumption rates should be determined from other studies and more robust data sets. One commenter suggested the incorporation of fish consumption rates representative of subsistence fishers, such as Native American populations that harvest and consume fish as part of their native traditions and culture.

Regarding drinking water ingestion rates, one commenter voiced concern about the assumption that groundwater is the source of all drinking water. The commenter indicated that this is an overly conservative and atypical assumption, as a majority of individuals will consume liquids from other sources (e.g., milk, juice, sodas, bottled water, sports and energy drinks).

EPA RESPONSE: This revised risk assessment relied on both the 1997 *Exposure Factors Handbook (EFH)*¹⁶⁴ and the 2008 *Child-Specific Exposure Factors Handbook (CSEFH)*¹⁶⁵ for information on human exposure factors for the U.S. population. The 2011 *Exposure Factors Handbook*¹⁶⁶ has been completed and updates some of the data from the 1997 EFH. During the finalization of this risk assessment, EPA released *OSWER Directive 9200.1-120*.¹⁶⁷ Although this document provides default exposure factors to use for point estimates, EPA is still in the process of updating the full distributions necessary for probabilistic analysis. Therefore, this risk assessment does not incorporate the data from the 2011 EFH.

Exposure data used for the fish ingestion rates are described in appendix D of the revised risk assessment. Data on site-specific fish consumption rates were not available for use in this analysis. Instead, the full distribution of fish consumption rates were drawn from a study of adult anglers from Maine that fished from

streams, rivers, and ponds. Because age-specific data for children were not available, all child cohorts were assumed to consume fish at the same rate as the adult cohort. Data on fish ingestion rates for Native American subsistence fishers are currently limited and can vary widely geographically, to the point that the 2011 EFH makes no recommendation for representative values. EPA acknowledges that these issues introduce uncertainty into the analysis, which are further discussed in Section 5 of the revised risk assessment.

COMMENT: Commenters emphasized the need to update exposure factors for childhood exposures and recommended that updates include data from the 2011 EFH. One commenter stated that the risk assessment appropriately considered the potential fish exposures for children. However, they pointed out that the fish consumption rates for children should be lower than those applied for adults. Another commenter suggested that the risk assessment should provide a clear description of how the exposure duration of child cohorts were used in the risk calculations. Specifically, the commenter questioned whether exposure durations were truncated at the end of each age cohort or aged through the different cohorts.

EPA RESPONSE: The revised risk assessment makes use of the 1997 EFH¹⁶⁸ and the 2008 CSEFH¹⁶⁹ for information on human exposure factors for the U.S. population. Although, as discussed in the preamble sections above, the revised risk assessment does not incorporate data from the recent 2011 EFH,¹⁷⁰ all child data included in this document was derived from the 2008 EFH. In addition to child ingestion of drinking water, EPA's evaluation has been revised to also account for infant exposures that may occur from formula mixed with contaminated groundwater. These data are presented in appendix D of the revised risk assessment. Consistent with the commenter's recommendation for cohort aging, the risk assessment aged receptors through each age cohort using age-specific data for exposure factors and physical characteristics that were weighted proportionally by the corresponding

time period and then summed. Specific discussion of truncation values is provided in later in this preamble.

COMMENT: Public commenters recommended updating BCF values with more current references. One commenter questioned why bioconcentration factors were zero for some constituents that are essential nutrients (i.e., cobalt and copper). Another commenter voiced concern that EPA had not fully considered the appropriateness of using BCFs to describe metals bioaccumulation, suggesting that current science (including EPA guidance documents) indicates that BCFs are poor predictors of tissue metal concentrations due to wide variation in uptake patterns governed by several chemical and biological factors. Another commenter recommended the use of an approach that would be more robust than the single BCF approach, establishing and applying distributions of BCFs. This commenter also recommended that the assessment adhere to the EPA policy of using dissolved metals in the calculating the bioconcentration of metals in fish, or should provide the rationale for using a different approach.

EPA RESPONSE: EPA recognizes that the use of BCFs may not represent the most current approaches available to estimate metal bioaccumulation at individual sites, where fish tissue data can be collected. However, as noted by public commenters, BCFs are useful in a screening-level assessment and EPA believes they are also appropriate for a national-level risk assessment, where site-specific data are not available and collection of site-specific data is not viable.

In some cases, insufficient data to determine a BCF value meant that these constituents could not be quantitatively evaluated for this pathway. Regarding the concern expressed with respect to zero BCF values, the commenter did not provide alternative BCFs that EPA could consider for the constituents at issue. Additionally, EPA agrees that, given the latest scientific information, distributions of BAFs/BCFs may be better than single BAFs/BCFs because they account for changes in bioaccumulation/bioconcentration at different water concentrations. EPA is working to develop BAF/BCF distributions for several CCR pollutants of concern but does not yet have a robust enough dataset for use for the final CCR Rule. In lieu of this, EPA is proceeding with the single BAF/BCF approach for the current analysis. EPA does recognize this issue as a limitation for the BCF calculations and considers it as an uncertainty in the risk

¹⁶⁴ U.S. EPA. 1997. *Exposure Factors Handbook, Volume III, Activity Factors*. EPA/600/P-95/002Fa. Office of Research and Development, Washington, DC. August.

¹⁶⁵ U.S. EPA. 2008. *Child-Specific Exposure Factors Handbook*. EPA/600/R-06-096F. National Center for Environmental Assessment, Cincinnati, OH.

¹⁶⁶ U.S. EPA. 2011. *Exposure Factors Handbook: 2011 Edition*. EPA/600/R-090/052F. National Center for Environmental Assessment, Office of Research and Development, Washington, DC. September.

¹⁶⁷ U.S. EPA. 2014. *Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors*. OSWER Directive 9200.1-120. February.

¹⁶⁸ U.S. EPA. 1997. *Exposure Factors Handbook, Volume III, Activity Factors*. EPA/600/P-95/002Fa. Office of Research and Development, Washington, DC. August.

¹⁶⁹ U.S. EPA. 2008. *Child-Specific Exposure Factors Handbook*. EPA/600/R-06-096F. National Center for Environmental Assessment, Cincinnati, OH.

¹⁷⁰ U.S. EPA. 2011. *Exposure Factors Handbook: 2011 Edition*. EPA/600/R-090/052F. National Center for Environmental Assessment, Office of Research and Development, Washington, DC. September.

characterization. Overall, EPA agrees that the use of this older data introduces some uncertainty into the analysis. These uncertainties are discussed in greater detail in Section 5 of the revised risk assessment.

With the exception of mercury, EPA evaluated bioconcentration based on water column concentrations that include contributions from dissolved and solid phases because available BCFs represent contributions from both. Because a BAF based only on dissolved-phase concentrations was available for mercury, EPA evaluated this constituent using only dissolved concentrations. Applying this conservative approach for most constituents ensured protection of human health. Even with this conservative assumption, the 90th percentile risks for the probabilistic analysis (Section 4) did not exceed risk criteria for the fish ingestion pathway. Therefore, this approach is unlikely to have affected the principal findings of the risk assessment.

For the revised risk assessment, EPA reviewed the available literature and identified BCFs for additional constituents that previously had no values. As noted in appendix G of the revised risk assessment, the following source hierarchy was used for fish BCFs:

- Primary literature: These are generally papers focused on a single chemical^{171 172 173 174} or may contain data on multiple chemicals.^{175 176}

¹⁷¹ Eisler, R. 1989. *Molybdenum Hazards to Fish, Wildlife, and Invertebrates: A Synoptic Review*. Contaminant Hazard Reviews, Report No. 19, Biological Report 85(1.19). Laurel, MD. August.

¹⁷² Kumada, H., et al. 1973. Acute and chronic toxicity, uptake and retention of cadmium in freshwater organisms. *Bull. Freshwater Fish. Res. Lab.* 22: 157

¹⁷³ Lemly AD. 1985. Toxicology of selenium in a freshwater reservoir: implications for environmental hazard evaluation and safety. *Ecotoxicology and Environmental Safety*. 10(3): 314–338.

¹⁷⁴ Murphy, B.R., G.J. Atchison, and A.W. McIntosh. 1978. Cadmium and zinc in muscle of bluegill (*Lepomis macrochirus*) and largemouth bass (*Micropterus salmoides*) from an industrially contaminated lake. *Environmental Pollution* 17:253–257.

¹⁷⁵ Barrows ME, Petrocilli SR, Macek KJ, Carroll JJ. 1980. Bioconcentration and elimination of selected water pollutants by bluegill sunfish (*Lepomis macrochirus*). In: Haque R, ed. Dynamics, exposure and hazard assessment of toxic chemicals. Ann Arbor, Michigan, U.S.A.: American Chemical Society. p. 379–392.

¹⁷⁶ Stephan, C.E. 1993. Derivation of Proposed Human Health and Wildlife Bioaccumulation Factors for the Great Lakes Initiative. Draft. Environmental Research Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Duluth, MN. March.

- U.S. EPA databases/publications: These included ECOTOX¹⁷⁷ and the Mercury Report to Congress.¹⁷⁸
- Other government agency resources: These included ATSDR Toxicological Profiles¹⁷⁹ and the Hazardous Substances Data Bank.¹⁸⁰

EPA also finds that the references provided by commenters provided primarily phytotoxicity and accumulation data for terrestrial plants, and were therefore not relevant to EPA's explicit solicitation on whether the bioconcentration factors drawn from Baes et al. (1984) should be considered in the final risk assessment.¹⁸¹

5. Comments Related to Ecological Exposure and Toxicity

COMMENT: Public commenters emphasized the potential importance of cumulative ecological risk, whereby an ecological receptor may be exposed to multiple constituents and/or pathways concurrently. For example, amphibians may be subject to both dermal and ingestion exposure. Public commenters noted that ecological risks were underestimated because the following scenarios were not considered for ecological receptors: Aboveground pathways, contaminant transport to nearby uncontaminated environments, and the inclusion of field data in the analysis.

EPA RESPONSE: EPA acknowledges that cumulative effects can be important for ecological receptors. However, just as EPA did not consider cumulative human health risks from exposures to groundwater (discussed in the previous sections of this preamble), they were not modeled for ecological receptors. In the national, probabilistic analysis (Section 4 of the revised risk assessment), risks for all constituents fell below the ecological criteria. Even the sum of modeled risks for all constituents fell

¹⁷⁷ U.S. EPA (Environmental Protection Agency). 2009b. *ECOTOX User Guide: ECOTOXicology Database System*. Version 4.0. Available online at www.epa.gov/ecotox/.

¹⁷⁸ U.S. EPA (Environmental Protection Agency). 1997d. *Mercury Study Report to Congress. Volume III—Fate and Transport of Mercury in the Environment*. EPA 452/R-97/005. Office of Air Quality Planning and Standards and Office of Research and Development, Washington, DC.

¹⁷⁹ ATSDR (Agency for Toxic Substances and Disease Registry). 2008. *Minimal Risk Levels (MRLs) for Hazardous Substances*. Available at www.atsdr.cdc.gov/mrls.html.

¹⁸⁰ U.S. NLM (National Library of Medicine). 2011. *Hazardous Substances Data Bank (HSDB)*. Available online at: toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB.

¹⁸¹ Baes, C.F., III, R.D. Sharp, A.L. Sjoreen, and R.W. Shor. 1984. *A Review and Analysis of Parameters for Assessing Transport of Environmentally Released Radionuclides Through Agriculture*. ORNL-5786. Oak Ridge National Laboratory, Oak Ridge, TN. September.

below the ecological criteria. In sensitivity analyses (Section 5 of the revised risk assessment), which considered different subsets of national disposal practices that may drive risks, boron and cadmium were the two constituents found to result in risks above ecological criteria. To the extent that cumulative exposures were not evaluated, EPA acknowledges that ecological risk could be underestimated to some degree. However, these uncertainties are unlikely to affect the principal findings of the risk assessment. In addition, EPA also notes that all surface water risks are orders of magnitude lower than the risks resulting from direct discharges modeled in U.S. EPA (2013).¹⁸²

In contrast to the surface water and sediment exposures, ecological risks for individual constituents were appreciably above risk criteria for direct exposure to impoundment wastewater. As a result, it is clear that CCR disposal in surface impoundments have the potential to pose risk to ecological receptors, even without consideration of cumulative exposures.

COMMENT: Public commenters stated that the risk assessment does not consider sensitive habitats or species. Commenters requested additional consideration of threatened and endangered species and the inclusion of ecological field data.

EPA RESPONSE: EPA did not evaluate these sensitive habitats and sensitive/endangered ecological receptors because these are inherently site-specific issues for which data on potential impacts are often not available and can be difficult to quantify, even on a site-specific basis. EPA acknowledges that the inability to quantitatively evaluate the potential for these adverse effects represents a source of uncertainty. Discussion of these uncertainties is presented in Section 5 of the revised risk assessment.

COMMENT: Public commenters were concerned that a more conservative approach was needed to derive the ecological benchmarks. Multiple commenters also stated that the use of risk attenuation factors to scale the screening risks to full-scale risks was inappropriate. Several commenters noted that the ecological boron benchmark used for surface water exposures contained incorrect units based on an incorrect transcription in the peer-reviewed article. Another commenter noted that the ecological

¹⁸² U.S. EPA. 2013. *Environmental Assessment for the Proposed Effluent Limitation Guidelines and Standards for the Steam Electric Power Generating Point Source Category*. EPA-821-R-13-003. Office of Water. Washington, DC 20460. April.

cadmium benchmark used for direct contact with surface water was incorrect.

EPA RESPONSE: Ecological benchmarks were obtained for CCR constituents when available and compared with the modeled media concentrations (e.g., surface water, sediment) to estimate the HQs used to characterize ecological risk. These benchmarks represent the best available estimates of receptor responses based “no effects” (NOAEL) or “lowest effects” (LOAEL) study data. In some scenarios, these benchmarks may represent species not actually present in the field. In others, these benchmarks may not capture the most sensitive possible receptor at every site or for each constituent. While some benchmarks have factors of safety included to account for these or other uncertainties, there remains the potential for these ecological benchmarks to underestimate risks for the specific species and communities that live in surface waters impacted by CCR WMUs. The magnitude of this uncertainty is unknown. Consideration of any additional sensitive species not captured by the current benchmarks may result in some additional constituents above risk criteria in the probabilistic analysis. EPA notes that ecological risks to some of these additional sensitive receptors may be reflected in damage cases. However, this site-specific uncertainty is unlikely to affect the national conclusions of the risk assessment.

Regarding incorrect benchmark values, an updated boron benchmark was used in the revised risk assessment. The units in the fish study from which the previous SCV was derived¹⁸³ had been erroneously transcribed in Suter and Tsao (1996)¹⁸⁴ as µg/L instead of mg/L. The updated SCV was recalculated using the corrected units. The revised value has been corroborated with the authors. Additionally, a continuous criteria concentration (CCC) was used for the cadmium surface water benchmark in the revised risk assessment, replacing the previous value. The updated values are presented in appendix E of the revised risk assessment report.

¹⁸³ Hamilton, S.J. 1995. Hazard assessment of inorganics to three endangered fish in the Green River, Utah. *Ecotoxicol Environ Saf* 30:134–142.

¹⁸⁴ Suter, G.W., and C.L. Tsao. 1996. *Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision*. U.S. Department of Energy, Oak Ridge National Laboratory, Oak Ridge, TN. June.

6. Comments Related to the Monte Carlo Analysis Approach

COMMENT: While some public commenters stated that the human health probability distributions appeared appropriate, others expressed concern regarding a conservative bias in input parameter probability distributions used and the resulting potential for overestimation of risks. These commenters noted that the ideal approach would be to estimate the actual risk and associated uncertainty rather than weighting the results conservatively.

EPA RESPONSE: The revised risk assessment conducted a full-scale, probabilistic Monte Carlo analysis to quantify human and ecological risks. EPA agrees it would be ideal to produce best estimates of actual risk. All input data distributions (e.g., aquifer data, soil type, WMU data, climate data, distance to groundwater wells, distance to surface water bodies, constituent concentrations, water flow data, human exposure factors) were developed in line with this objective. However, these distributions were developed from available data and are subject to the limitations of these data. In cases where data were not sufficient to fully characterize the input distribution, conservative values and assumptions were used to fill data gaps to remain protective of human health and the environment. Further discussion of these uncertainties has been added to Section 5 of the revised risk assessment.

COMMENT: Public commenters pointed out that the risk assessment does not formally differentiate variability from uncertainty or show confidence limits for risk results, which makes it challenging to identify opportunities to reduce uncertainty. One commenter requested that EPA discuss the implications of the relatively wide risk distributions, including the reasons why some risk distributions are larger than others based on the Monte Carlo results.

EPA RESPONSE: EPA acknowledges it would be ideal to separate variability from uncertainty when possible in a probabilistic risk assessment. EPA was able to reduce a substantial number of the uncertainties in the revised risk assessment through the acquisition of additional data on facilities, environmental parameters, and constituent concentrations. Variability and uncertainty are still comingled in a large number of cases due to remaining data gaps; however, EPA conducted multiple sensitivity analyses to determine the potential for different inputs to affect risk results. Additional

discussion of the differences between parameter variability, data uncertainty, and model error, as well as discussions of the sensitivity and uncertainty analyses, is presented in Section 5 of the revised risk assessment.

EPA disagrees that there are wide risk distributions. While the commenter correctly points to other risk assessments that had closer central tendency and high-end results, those were either site-specific assessments or involved no fate or transport modeling. National-scale risk assessments will necessarily have wider variability in their results compared to risk assessments that are specific to a single site. Thus, the “wider” risk distributions simply reflect the fact that different sites with different CCR can have very disparate impacts on human health and the environment.

7. Miscellaneous Comments

COMMENT: Some commenters stated that the documentation is incomplete and that an independent reviewer could not reproduce the analysis. Another commenter performed an independent review and cancer risk estimate and noted that the EPA used a reasonable approach for calculating cancer cases in the risk assessment.

EPA RESPONSE: EPA acknowledges that the documentation of the inputs and intermediate outputs could have been more transparent for the 2010 Draft Risk Assessment. In the revised risk assessment, many of the inputs EPA used are directly discernible from the appendices. A summary of the data available in each appendix is presented in Section 1 of the revised risk assessment. EPA also acknowledges that the additions and discussions of inputs in the document were not sufficient for complete duplication of the results. Thus, the input and output files for the draft risk assessment were made available in the docket of the proposed rule via an FTP site,¹⁸⁵ and final input and output files are being placed in the docket for the final rule.

COMMENT: Commenters requested improvement on the graphical presentation of risk results. Additionally, commenters requested further explanation of the minimum and maximum truncating values, as truncated values may reduce risk estimates.

EPA RESPONSE: While EPA did not provide a graphical presentation of the risk results, this information is more clearly discernible from the full input and output files. For discussion of the

¹⁸⁵ Available online at: <ftp://ftp.epa.gov/coal-combustion-residues>.

full inputs and outputs files, see the responses in the preamble section above. With regard to truncation, EPA no longer manually truncates input distributions for the human exposure factors. Instead, exposure factor distributions in the revised risk assessment were generated with the @Risk software (Palisade Co., Newfield, NY),¹⁸⁶ as described in appendix D. EPA has also added further discussion of the cohorts to revised risk assessment, with tables comparing each cohort's risk presented in Section 5 of the revised risk assessment.

COMMENT: Commenters requested more complete documentation of the sensitivity analysis. Other comments included a request to add human health exposure factor variables to the sensitivity analysis, and to conduct additional sensitivity analyses on different topics (*e.g.*, well distance distribution).

EPA RESPONSE: EPA acknowledges the omission of the original sensitivity analysis from the docket. EPA updated the sensitivity analysis¹⁸⁷ so that it clearly describes the methodology that underlies the results summarized in Section 5 of the revised risk assessment. This sensitivity analysis was placed in the docket for the proposed rule.

Human health exposure factor variables were not evaluated in the sensitivity analysis. Human exposure factor variables have well-established, peer-reviewed, national distributions that are regularly used in probabilistic risk analyses conducted by EPA based on Agency policy. Therefore, the contribution of variability in the exposure factors to the variability in risk was not particularly useful for understanding the aspects of CCR disposal practices that may drive risk. Additional sensitivity analyses such as leachate duration versus leachable content and liner performance by thickness were conducted in the revised risk assessment and are summarized in Section 5.

B. Summary of Risk Assessment and Results

1. Problem Formulation

EPA first developed conceptual models to illustrate a general layout of surface impoundments and landfills, the chemical constituents that may be released from these WMUs, the routes through which these constituents may migrate through environmental media,

and the types of exposures that may result. These conceptual models were used as the basis for all subsequent data collection efforts. EPA first collected data on the coal-fired power plants and CCR WMUs located across the United States. EPA then collected regional and national data to characterize the environment and receptor population surrounding each WMU. The data assembled represent the most current and comprehensive information available to the Agency at the time this risk assessment was conducted. Using the data collected, EPA first conducted a simplified hazard identification to determine which constituents warranted further evaluation. At this stage, EPA considered the presence of a constituent in CCR waste, combined with the availability of at least one toxicity benchmark, sufficient evidence of hazard potential. Table 1 presents a summary of the different chemical constituents retained as constituents of potential concern (COPCs) for further analysis.

TABLE 1—LIST OF CHEMICAL CONSTITUENTS EVALUATED IN THE CCR RISK ASSESSMENT

Aluminum
Ammonia
Antimony
Arsenic
Barium
Beryllium
Boron
Cadmium
Calcium
Chloride
Chromium
Cobalt
Copper
Fluoride
Iron
Lanthanum
Lead
Lithium
Magnesium
Manganese
Mercury
Molybdenum
Nickel
Nitrate/Nitrite
Selenium
Silicon
Silver
Sodium
Strontium
Sulfate
Sulfide
Thallium
Uranium
Vanadium
Zinc

(HQ) greater than 1. EPA typically relies on a risk range to determine the point at which regulation is appropriate. EPA uses as an initial cancer risk “level of concern” a calculated risk level of 1×10^{-5} (one in one hundred thousand) or an HQ above 1.0 for any noncarcinogens. For example, waste streams for which the calculated high-end individual cancer-risk level is 1×10^{-5} or higher generally are considered candidates for regulation. Waste streams whose risks are calculated to be 1×10^{-4} or higher generally will be considered to pose a substantial present or potential hazard to human health and the environment and generally will be regulated. Waste streams for which these risks are calculated to be 1×10^{-6} or lower, and lower than 1.0 HQs or EQs for any noncarcinogens, generally will be considered not to pose a substantial present or potential hazard to human health and the environment and generally will not be regulated. See 59 FR 66075–66077, December 22, 1994.

2. Screening Analysis

EPA conducted separate screening analyses for each exposure pathway to identify which COPCs are most likely to pose risk to receptors. The results of this screening generally do not provide a precise characterization of individual risks that may occur, but rather identify those COPCs that are most likely to exceed risk criteria. In cases where well established, post-construction management practices (“controls”) have been shown to minimize releases from WMUs, EPA considered exposures for both an uncontrolled and controlled management scenario.

This screening analysis identified potential risks to human and ecological receptors resulting from the releases of particulate matter and the chemical constituents contained therein through wind and run-off. Under an uncontrolled management scenario, risks to human receptors resulted from the inhalation of windblown particulates in ambient air and the ingestion of soil and animal products (*i.e.*, meat and dairy), while risks to ecological receptors resulted from exposures to soil and sediment. Under a controlled management scenario, which consisted of fugitive dust controls and run-on/run-off controls, all risks associated with these exposure pathways decreased to below the criteria. Due to the conservative nature of the screening, there is a great deal of uncertainty surrounding the specific risks calculated for these exposure pathways. These risks represent a protective, but unlikely, combination of conditions that reflect at least an upper

¹⁸⁶ Available online at: www.palisade.com/risk/.

¹⁸⁷ U.S. EPA. 2009. *Sensitivity Analysis for the Coal Combustion Waste Risk Assessment*. Draft Technical Report. Prepared by RTI International for U.S. EPA, Office of Solid Waste, Washington, DC.

All risks identified in subsequent analyses were compared against risk criteria of cancer risk greater than 1×10^{-5} or a noncancer hazard quotient

bound on potential exposures. Thus, the cumulative effect of these uncertainties results in an overestimation of nationwide risks to most or all receptors. Therefore, EPA makes no direct findings concerning the magnitude of the risks that may occur under either an uncontrolled or controlled management scenario, but concludes with a high degree of confidence that the reductions achievable with standard management practices are sufficient to be protective even under this conservative screening assessment. Based on these lines of evidence, EPA concluded that no

further characterization was warranted for these exposure pathways.

These screening analyses identified potential risks to human and ecological receptors from leaching of chemical constituents from CCR waste into surrounding environmental media. Risks to human health resulted from ingestion of groundwater and fish, while risks to ecological receptors resulted from exposure to surface water. There was no simple method to estimate the effect controls may have for these pathways. However, considerable dilution and attenuation may occur before COPCs reach downgradient

private wells and surface water bodies. Therefore, EPA retained all of the COPCs found to be above risk criteria in groundwater and surface water for further characterization. In addition, EPA used the uncontrolled screening results for the above ground sediment pathway as a conservative proxy for the groundwater to surface water sediment pathway. As a result, sediment exposures of four COPCs were retained for further characterization. Table 2 presents a summary of the chemical constituents retained as COPCs for each pathway.

TABLE 2—LIST OF CHEMICAL CONSTITUENTS RETAINED FOR PROBABILISTIC ANALYSIS

Human health		Ecological	
Ingestion of groundwater	Ingestion of fish	Surface water exposure	Sediment exposure
Antimony Arsenic Boron Cadmium Cobalt Fluoride Lead Lithium Molybdenum Thallium	Arsenic Cadmium Mercury Selenium Thallium	Aluminum Arsenic Barium Beryllium Boron Cadmium Chloride Chromium Cobalt Copper Iron Lead Molybdenum Nickel Selenium Silver Vanadium Zinc	Antimony Arsenic Silver Vanadium

These screening analyses also identified potential risks to ecological receptors from direct exposure to impoundment wastewater. Unlike the other exposure pathways, no dilution or attenuation will occur within impoundment wastewater prior to ecological exposures. Thus, the direct exposures considered in the screening analysis provide a reasonable estimate of the relative magnitude of risks. Based on the screening analyses, EPA concluded that HQs for ecological receptors exceeded 1 for the following constituents (listed from highest to lowest potential): Arsenic (100), barium (50), aluminum (30), boron (30), selenium (20), cadmium (10), vanadium (10), beryllium (2), chloride (2) and chromium (2). Because the screening analysis provides sufficient characterization of these exposures, this pathway was not carried forward for further analysis.

3. Probabilistic Analysis

EPA conducted a national-scale, probabilistic analysis to better characterize the potential risks to human and ecological receptors associated with leachate released from surface impoundments and landfills. The specific exposure routes evaluated for these releases were human ingestion of groundwater used as a source of drinking water and fish caught from freshwater lakes or streams, as well as ecological contact with and ingestion of surface water and sediment. A combination of models was used to predict COPC fate and transport through the environment, receptor exposures, and the resulting risks. Site-specific data were used, supplemented by regional and national data sets, to capture the national variability of disposal practices, environmental conditions and receptor behavior. EPA modeled risks for both highly exposed individuals (90th percentile risks) and more moderately exposed individuals (50th percentile risks). In instances where the

speciation of a COPC has been shown to greatly affect fate and transport, EPA modeled multiple species to provide a bounding on potential exposures.

Table 3 shows the 90th percentile human health risks to the most sensitive age cohorts for constituents that exceeded the risk criteria. Risks are presented for arsenic modeled entirely as two different species (III and V) to provide a bounding on potential risks. Values that exceed the selected risk criteria are shown in bold. No 90th percentile risks above ecological criteria were identified for either surface impoundment or landfills. No 50th percentile risks above human health or ecological criteria were identified for either surface impoundment or landfills.

TABLE 3—90TH PERCENTILE NATION-WIDE PROBABILISTIC RISK RESULTS

COPC	Ingestion of groundwater	
	Surface impoundments	Landfills
Cancer Risks		
Arsenic III	2×10^{-4}	5×10^{-6}
Arsenic V	1×10^{-5}	7×10^{-8}
Noncancer Risks		
Arsenic III	5	0.1
Arsenic V	0.4	<0.01
Lithium	2	^(a)
Molybdenum	2	<0.01

^a Leachate data were not available to model this COPC for landfills.

- **Surface Impoundments:**

Ingestion of groundwater was the only exposure pathway that resulted in risks above 1×10^{-5} . 90th percentile cancer risks above 1×10^{-5} were identified for arsenic III (2×10^{-4}). The 90th percentile noncancer risks above an HQ of 1 were identified for arsenic III (5), lithium (2), and molybdenum (2).

- **Landfills:**

All 90th percentile cancer and non-cancer risks were below human health criteria.

High-end risks identified for surface impoundments are consistently higher than those for landfills. These results are attributed to the higher infiltration rates through surface impoundments, which are driven by the hydraulic head of the ponded water. Median risks for both surface impoundments and landfills were substantially lower than both the high-end risks in this risk assessment and the median risks modeled in the 2010 Risk Assessment. This decrease is attributed primarily to the interception of groundwater by surface water bodies, which is accounted for in the revised risk assessment to provide a more accurate mass balance of constituent mass during transport. It is common for coal-fired utilities to be located near water bodies, which are used as a source of cooling water and conveyance of waste. As a result, in the majority of model iterations, the interception of groundwater by surface water bodies resulted in negligible downstream well concentrations.

Based on the results of the probabilistic analysis, EPA concludes that leaching from CCR waste management units has the potential to pose risk to receptors. Arsenic, lithium, and molybdenum are the chemical constituents found to pose the greatest risks from surface impoundments, while arsenic posed the greatest risks from

landfills. Available toxicological profiles indicate that risks from arsenic ingestion are linked to an increased likelihood of cancer in the skin, liver, bladder and lungs, as well as nausea, vomiting, abnormal heart rhythm, and damage to blood vessels;¹⁸⁸ risks from lithium ingestion are linked to neurological and psychiatric effects, decreased thyroid function, renal effects, cardiovascular effects, skin eruptions, and gastrointestinal effects;¹⁸⁹ and risks from molybdenum ingestion are linked to higher levels of uric acid in the blood, gout-like symptoms, and anemia.¹⁹⁰

4. Sensitivity and Uncertainty Analysis

The modeled probabilistic risks capture the range of current, nationwide CCR disposal practices. However, because of the broad scope of the analysis, there are a number of sources of variability and uncertainty present. Therefore, to confirm the results of the probabilistic analysis and to better understand whether any particular subset of disposal practices drives the risks identified, EPA conducted additional sensitivity and uncertainty analyses.

EPA reviewed the models used, as well as the data and assumptions input into these models, to better understand the sources of variability and uncertainty inherent in the probabilistic analysis. The Agency then qualitatively and, to the extent possible, quantitatively analyzed these sources to understand the potential effects each may have on the modeled risk results. During this review, specific attention was focused on the parameters shown to have the greatest influence on model results. As a further method of validation, EPA compared the results of the sensitivity and uncertainty analyses with proven and potential damage cases. Together these analyses and comparisons show that there is a high degree of confidence in the principal findings of the probabilistic analysis. However, the review of sensitive parameters revealed some specific disposal practices that may result in greater risks than identified in the probabilistic modeling.

Through these additional sensitivity and uncertainty analyses, which explored different subsets of national disposal practices, EPA identified the potential for higher risks than those

identified in the broader, national analysis. In particular, consideration of different waste pH values showed higher risks for arsenic at more acidic and basic pH values, as well as additional risks for boron, cobalt, fluoride and mercury at these more extreme pH values. Consideration of specific liner types showed that groundwater risks are driven by disposal in unlined units and, in particular, unlined surface impoundments. For these units, EPA identified higher risks for arsenic, lithium, and molybdenum, as well as additional risks for thallium. Clay-lined units were found to pose lower risks than unlined units. Composite-lined units were found to be the most protective disposal practice, resulting in risks far below all criteria identified in this risk assessment.

C. Conclusions

Based on the analyses presented in this document, EPA concludes that current management practice of placing CCR waste in surface impoundments and landfills poses risks to human health and the environment within the range that OSWER typically regulates. On a national scale, surface impoundments presented higher risks than landfills. Risks to ecological receptors were identified from exposures to aluminum, arsenic, barium, beryllium, boron, cadmium, chloride, chromium, selenium and vanadium through direct exposure to impoundment wastewater. Risks to residential receptors were identified primarily from exposures to arsenic, lithium, and molybdenum in groundwater used as a source of drinking water, but additional risks from boron, cadmium, cobalt, fluoride, mercury and thallium were identified for specific subsets of national disposal practices.

Sensitivity analyses on liner type indicate that disposal of CCR wastes in unlined surface impoundments and landfills presents the greatest risks to human health and the environment. As modeled, the national risks from clay-lined units are lower than those for unlined units, but such units can exceed risk criteria at individual sites. Composite liners were the only liner type modeled that effectively reduced risks from all pathways and constituents far below human health and ecological criteria in every sensitivity analysis conducted. Sensitivity analyses on waste type indicate that the acidic conditions that result from codisposal of CCR waste with coal refuse and the basic conditions that result from disposal of FGD waste result in higher

¹⁸⁸ Profile for arsenic available online at: www.epa.gov/iris/subst/0278.htm and www.atsdr.cdc.gov/toxprofiles/tp2.pdf.

¹⁸⁹ Profile for lithium available online at: hhprrtv.ornl.gov/issue_papers/Lithium.pdf.

¹⁹⁰ Profile for molybdenum available online at: www.epa.gov/iris/subst/0425.htm.

risks from arsenic and other constituents than CCR waste disposed alone.

The risk results are consistent with the groundwater damage cases compiled by EPA. These damage cases were primarily associated with unlined units and were most frequently associated with releases of arsenic. Recent surveys of the industry indicate the majority of newly constructed units are lined, and that the practice of codisposal with coal refuse has declined. However, this risk assessment presents a static snapshot of current disposal practices. While newer units may be managed in a more protective manner, older units, which still comprise the majority of current units, continue to operate in a manner that poses risks to human health and the environment that OSWER typically regulates.

XI. Summary of Damage Cases

EPA has a long history of considering damage cases in its regulatory decisions under RCRA. As discussed earlier in this preamble, the statute specifically directs EPA to consider “documented cases in which danger to human health and the environment from surface runoff or leachate has been proved,” in reaching its Regulatory Determination for these wastes, demonstrating that such information is to carry great weight in decisions under this section. 42 U.S.C. 6982(n)(4). Damage cases, even if only potential damage cases, are also relevant under the third Bevill factor: “potential danger, if any, to human health and the environment from the disposal and reuse of such materials.” 42 U.S.C. 6982(n)(4). In addition, damage cases are among the criteria EPA must consider under its regulations for determining whether to list a waste as a “hazardous waste.” See 40 CFR 261.11(a)(3)(ix). Damage cases generally provide extremely potent evidence in hazardous waste listings. In this regard, EPA notes that the number of damage cases collected for this rulemaking (157) is by far the largest number of documented cases in the history of the RCRA program.

EPA considers that both proven and potential damage cases provide information directly relevant to this rulemaking. First, damage cases provide evidence of both the extent and nature of the potential risks to human health and the environment. The primary difference between a proven and a potential damage case is whether the contamination has migrated off-site of the facility. But the mere fact that groundwater contamination has not yet migrated off-site does not change the fact that a potentially harmful

constituent has leached from the unit into groundwater. Whether the constituent ultimately causes further damage by migrating into drinking water wells does not diminish the significance of the environmental damage caused to the groundwater under the site, even where it is only a future source of drinking water. As EPA explained in the preamble to the original 1979 open dumping criteria, which are currently applicable to these facilities, EPA is concerned with groundwater contamination even if the aquifer is not currently used as a source of drinking water. Sources of drinking water are finite, and future users’ interests must also be protected. (See 44 FR 53445–53448.) (“The Act and its legislative history clearly reflect Congressional intent that protection of groundwater is to be a prime concern of the criterion. . . . EPA believes that solid waste activities should not be allowed to contaminate underground drinking water sources to exceed established drinking water standards. Future users of the aquifer will not be protected unless such an approach is taken.”)

In the June 21, 2010 proposed rule, EPA presented for public comment an assessment of CCR damage cases, and requested comments and other information related to damage cases EPA had previously received from industry, environmental groups, and citizen groups. EPA later requested public comment on additional damage case information in a Notice of Data Availability (NODA) published in the **Federal Register** on October 12, 2011 (76 FR 63252). As discussed in Section IV of this preamble, the Agency is deferring making a Bevill determination; however, EPA is still presenting its findings with regard to damage cases (including information submitted during the comment periods for the June 2010 proposal and the October 2011 NODA) because as described above, this information supports actions taken in the present final rule.¹⁹¹

A. Damage Cases Presented in June 21, 2010 Proposed Rule

In the June 2010 proposed rule, the Agency summarized its database on damage cases that had expanded since the May 2000 Regulatory Determination.¹⁹² This summary included two cases of CCR slurry spill caused by surface impoundment dike

failures (the 2005 Martins Creek, Pennsylvania, and the 2008 TVA Kingston, Tennessee), and two cases involving structural fill (the use, between 1995–2007, of CCR in the reclamation of two sand and gravel pits in Gambrills, Maryland; and for contouring the Battlefield Golf Course, in Chesapeake, Virginia, in the early 2000s). In the June 2010 proposed rule, the Battlefield Golf Course site was designated as a potential damage case, whereas the other three sites were designated as proven damage cases.¹⁹³

B. Additional Information and Studies

Shortly prior to the publication of the June 2010 proposed rule and immediately thereafter, several stakeholder groups provided the Agency with new information on damage cases. In November 2009, the Electric Power Research Institute (EPRI) issued a two-volume draft report¹⁹⁴ analyzing the 24 proven and 43 potential damage cases established in EPA’s 2007 damage case report¹⁹⁵ accompanying the August 2007 Notice of Data Availability (NODA).¹⁹⁶ EPRI claimed that in the great majority of damage cases there is no record of primary MCL contaminants migrating off-site that would justify designating them as proven damage cases. EPRI also disagreed with several ecologic damage cases that had been predicated on fish advisories in Texas, on the grounds that the selenium toxicity standard that triggered these fish advisories was later revised by the state, and subsequently the fish advisories were rescinded. In February and August 2010, The Environmental Integrity Project (EIP), jointly with other citizen groups, issued two reports, identifying 70 alleged damage cases.^{197 198} Fifty of these cases were submitted to EPA for the first time.

¹⁹³ See 75 FR at 35131 for definitions of “proven” and “potential” damage cases.

¹⁹⁴ *Evaluations of CCP Damage Cases*: These two volumes were finalized in July and September 2010, respectively: <http://my.epri.com/portal/server.pt?open=512&objID=413&PageID=230509&mode=2&cached=true>.

¹⁹⁵ *Coal Combustion Waste Damage Case Assessments*, July 9, 2007. EPA–HQ–RCRA–2006–0796–0015.

¹⁹⁶ Notice of Data Availability on the Disposal of Coal Combustion Wastes in Landfills and Surface Impoundments, 72 FR 49714, August 29, 2007.

¹⁹⁷ *In Harm’s Way: Lack of Federal Coal Ash Regulations Endangers Americans and Their Environment*. Environmental Integrity Project, Earthjustice, and Sierra Club: http://www.environmentalintegrity.org/news_reports/08_26_10.php.

¹⁹⁸ *Out of Control: Mounting Damages from Coal Ash Waste Sites*. Environmental Integrity Project and Earthjustice: http://www.environmentalintegrity.org/news_reports/news_02_24_10.php.

¹⁹¹ Damage Case Compendium (Technical Support Document on Damage Cases), U.S. EPA, December 2014.

¹⁹² See June 21, 2010 **Federal Register**—Appendix to the Preamble: Documented Damages from CCR Management Practices (75 FR 35230).

In response to EPRI's report, EPA reassessed the 24 proven damage cases identified in EPA's 2007 Damage Case report, as well as three additional proven damage cases cited in the proposed rule. In addition, in response to EIP's reports, the Agency assessed the 70 alleged damage cases, to independently confirm the allegations in the report. In reviewing¹⁹⁹ these alleged damage cases, EPA took a number of measures. First, to the extent the information was available, EPA consulted tabulated monitoring well data to validate the exceedance data presented in comments; and studied well- and waste-unit location maps, geohydrologic studies, and groundwater potentiometric maps to validate both whether the wells were up-gradient or down-gradient wells and instances of groundwater mounding. EPA also contacted state regulators to confirm the reports' claims of contamination, particularly contamination exceeding state or federal water quality standards, and conducted internet research (focusing on state regulatory information) pertaining to the sites in question. EPA also thoroughly assessed state comments submitted to EPA in response to the June 2010 proposed rule and the October 2011 NODA. Third, EPA identified state or federal administrative measures applied to utilities (e.g., consent orders, notices of violation, penalties for non-compliance, etc.) and/or legal motions (e.g., law-suits, motions for injunctive relief, and out-of-court settlements) filed by the states or citizen groups in order to identify any instances of non-compliance by the utilities that have resulted in documented impacts to water resources.

EPA's review confirmed that 13 of the 27 damage cases previously designated as proven did meet the criteria used by EPA for identifying proven damage cases; however, EPA also found that six of the 27 cases only meet the criteria for a potential damage case, while the remaining eight cases were altogether rejected (i.e., EPA determined that a damage case has not occurred, and/or test of proof criteria were not satisfied, and/or CCR was not the only or predominant waste component). Regarding the 70 alleged damage cases in the two EIP reports, EPA concluded that ten of them qualify as proven damage cases, 45 as potential damage cases, and the remainder were either rejected or, due to the lack of adequate information, defined as indeterminate.

¹⁹⁹ See *Assessment of Previously Identified Proven Damage and Recently Alleged Damage Cases*, October 2010.

In November 2011, the Utility Solid Waste Activities Group (USWAG) submitted to the docket of the October 2011 NODA a critical review of EIP's 70 alleged damage cases from 2010. USWAG's review concluded that "the overwhelming majority of the allegations regarding the 70 sites . . . fail to provide the requisite 'test of proof' documentation necessary for EPA to characterize virtually any of the sites as proven damage cases." Also, in November 2011 EIP submitted to the docket of the October 2011 NODA a report alleging 20 new damage cases.²⁰⁰

Following review of the comments on the proposed rule and the October 2011 NODA, EPA has revisited some of its earlier damage case findings. Our post-proposal studies have resulted in: (1) Rejection of 17 of the previously-established and newly-alleged damage cases, either due to inappropriate scope (e.g., oil combustion waste, non-utility CCR, or CCR disposed-off in abandoned coal mine pits), co-mingling with non-CCR waste, or inadequate information to ascertain that contaminants are derived from CCR; (2) two of the damage cases that had been previously designated as 'rejected' in EPA's 2007 damage case report were re-categorized as proven damage cases and six others were re-categorized as potential damage cases; and (3) one damage case site reported in *Risky Business* occurred next to a site that had already been previously reported.

In summary, at the present time the Agency has established 40 proven and 113 potential damage cases. In addition, the rulemaking docket contains four additional, state-endorsed damage cases from Wisconsin. While EPA has insufficiently-detailed information (including the extent, if any, that the contaminants have migrated off site) to designate these four additional sites as potential or proven, because the state has identified them to us as damage cases, we have included them in our overall total of 157.

C. Stakeholder Comments on Damage Cases

All of the comments submitted by stakeholders to the dockets of the proposed rule and the October 2011 NODA, as well as EPA's responses, are included in the Technical Support Document to CCR Damage Cases which

²⁰⁰ EPA-HQ-RCRA-2011-0392-0259. Nineteen of the cases involve groundwater impact, and one involves soil contaminated by the placement of coal ash and clinkers from train engine boilers for railroad tracks bed. A hard copy of the report, *Risky Business: Coal Ash Threatens America's Groundwater Resources at 19 More Sites*, was issued on December 12, 2011.

is available in the RCRA docket supporting this rule. The following is a summary of the salient comments submitted by the various stakeholder groups.

1. Utility Industry's Comments

EPA received several comments from utilities arguing that an incident should not be considered to be a "damage case" if the environmental damage has been addressed or is no longer occurring and/or if the State Director is satisfied that no further action is required. (Note: For those damage cases known to the Agency prior to EIP's 2010 reports, remediation is completed or underway at all sites where remediation was known to be required.) These commenters also argued that EPA should disregard cases in which there are no downstream contaminant receptors to be harmed by the contamination. These commenters also alleged that only "proven" damage cases should be considered to be relevant as only these are "*documented cases in which danger to human health or the environment from surface runoff or leachate has been proved*," 42 U.S.C. 6982(n)(4).

Industry commenters also made a number of other points. They stated that most damage cases occurred in older facilities commissioned before current state landfill regulations were promulgated, where most waste units lack liners and leachate collection systems, and that in most cases, exceedances of state or federal water quality standards were contained on site, and these exceedances are mostly for constituents (e.g., sulfate and boron) that do not have federal, health-based drinking water quality standards. These commenters also claimed that the number of proven damage cases is very sparse: Of the 24 proven damage cases in EPA's 2007 report,²⁰¹ they argued that only three had documented off-site groundwater exceedances of health-based MCLs that can be attributed to CCR impacts. They also claimed that of the 70 alleged damage cases in EIP's 2010 reports (*In Harm's Way and Out of Control*), 64 did not meet EPA's "test of proof" criteria for characterizing the site as a proven damage case. For the remaining six sites, where the allegations on their face arguably met EPA's definition of a proven damage case, these commenters claimed that these cases should be discounted because they involved sites that are either no longer active or where the damages had been already remediated

²⁰¹ *Coal Combustion Waste Damage Case Assessments*, *ibid*.

or are undergoing remediation with federal/state oversight. These commenters also said that 12 of the 70 EIP-alleged damage cases were previously addressed in EPA's 2007 Damage Case report, and of these, five sites had been rejected by the EPA due to lack of evidence of damage or lack of evidence of damage uniquely associated with CCR, and seven sites had been characterized as indeterminate due to insufficient information. According to these commenters, no new information regarding these 12 sites was contained in the two EIP reports that warrants their designation as proven damage cases.²⁰²

2. Individual State Comments

EPA also received a significant number of comments from individual states. In their comments, many of the states addressed selected damage cases that occurred within their jurisdiction, subject to their authority. Several states agreed with EPA's assessment of the damage cases; for instance, Wisconsin and Michigan complimented EPA's database of damage cases. Other commenters agreed with some of the newly alleged damage cases' reports of groundwater contamination exceeding regulatory standards, but disagreed with EIP's conclusions that enforcement was inadequate, tardy, or absent. According to some state commenters, enforcement was not necessary or appropriate in those instances. For example, some states (*e.g.*, North Carolina, Oklahoma, Tennessee, and Florida) argued that the contamination did not pose public health risks because the contaminants were confined to state-established Compliance Boundaries (known also as Groundwater Mixing Zones)²⁰³ and/or because there was no evidence the contamination had migrated off-site. Several other states (*e.g.*, Maryland, Virginia, and Texas) confirmed EPA's established damage cases as well as some of the newly alleged damage cases, but claimed that these cases were associated with presently outdated practices, and that regulatory requirements have since been revised to prohibit such practices. Two states (South Dakota and Pennsylvania) confirmed that contamination above federal or state regulatory standards had

occurred, but attributed the contaminant(s) to sources other than CCR units, *e.g.*, coal mining pits associated with coal refuse; and/or nearby, up-gradient unlined MSWLFs, cooling water evaporation ponds, or natural background soil compositions. For certain cases, the states explained that required assessment monitoring was still ongoing to establish the source, scope, and extent of the contamination, and so had reached no conclusions about the specific allegations (North Carolina, North Dakota, and Tennessee). Finally Ohio acknowledged that the extent of groundwater contamination risk within the state is poorly-documented due to the scarcity of monitoring wells down gradient from unlined disposal units.

3. State Association Comments

The Association of State and Territorial Solid Waste Management Officials (ASTSWMO) argued that the 24 proven damage cases reported in EPA's 2007 Damage Case report do not reflect current land disposal practices, and so are irrelevant to the proposed rule. For example, disposal "units" involved in several damage cases included five sand and gravel pits, two quarries, and one lake impoundment. ASTSWMO commented that half of these sites began operating in 1970 or earlier, including at least six sites that began operating in the early 1950s. ASTSWMO claimed that much of the information cited in the two EIP 2010 alleged damage case reports is incomplete, incorrect and/or misleading. For example, their comments alleged that EIP failed to provide pertinent information on specific monitoring wells, sample/analytical dates, and hydrogeological data. ASTSWMO also claimed that many of the assumptions about groundwater flow were based on a topographic maps rather than on potentiometric maps that are based on subsurface groundwater flow data. They also claim that data in state files contradicted claims in the reports, and that EIP's reports contained numerous technical errors, such as reporting values for naturally occurring constituents as contamination, reported data without distinguishing between down-gradient and up-gradient wells, ignoring the potential contribution from sources other than CCR-related units (*e.g.*, coal mining legacy), and claims that information provided by state program staff was misconstrued/misrepresented.

4. Citizens Group Comments

Citizen groups generally argued that the fact that damage has occurred should be part of the weight of evidence documenting the potential for harm at all CCR disposal sites, without regard to whether the damage cases were categorized as "proven" or "potential." These commenters also raised a number of arguments in direct response to the comments provided by the utilities and the states. For example, these commenters argued that the presence of downstream receptors is a valid factor to consider when setting priorities for mitigating damage, but does not justify allowing contamination to migrate off of the disposal site. These commenters claimed that about one-fifth of EPA's damage cases preceding the 2010 EIP reports show evidence of contamination of private and public drinking water wells. In addition, these commenters allege that state regulatory agencies have done little to respond to contamination from CCR disposal sites, and, even in those cases where action has been taken, rarely is any action taken beyond assessment monitoring. According to these commenters, off-site monitoring has only occurred at a limited number of sites, and mostly such monitoring was performed voluntarily by the utilities and was not reported to state regulators. These commenters also claimed that although less than half of EPA's damage cases preceding the 2010 EIP reports involve active landfills, almost three-quarters of the newly alleged damage cases (EIP's 2010 reports) involve active landfills. They further alleged that a large majority of EPA's surface impoundment damage cases preceding the 2010 EIP reports are active sites, indicating that the absence of liners is contributing to the contamination problems. They noted that one quarter of the damage cases in EIP's 2010 reports involved units with liners, indicating that the mere presence of any liner provides no assurance that migration of contaminated groundwater from a waste unit is not occurring. Overall, they claimed that surface impoundments remain "woefully unregulated" when compared to landfills. Over one third of EIP's alleged groundwater damage cases show migration of contamination off-site. Also, a quarter of EPA's damage cases preceding the 2010 EIP reports involve contamination of surface water, and 15 percent of these damage cases show ecologic damage. Finally, these commenters note that several of the Secondary Contaminant Maximum Levels (SMCLs) constituents still might

²⁰² EPA-HQ-RCRA-2011-0392-0211, *ibid.*

²⁰³ A Zone of Discharge or Zone of Mixing is a three dimensional region containing groundwater being managed to mitigate impairment caused by the release of contaminants from a waste disposal site; by definition, it is inside the detection boundary area, hence it is exempt from compliance with MCL and SMCL standards (*e.g.*, in Florida, Illinois, South Carolina, Tennessee, North Carolina, and Pennsylvania).

cause harm to recipients residing next to CCR disposal sites.²⁰⁴

D. Response to Key Stakeholder Comments

In many instances EPA did not have access to information that would either substantiate or refute the claims in EIP's reports. In many instances public commenters submitted information that clarifies, rebuts or otherwise calls into question some of the allegations contained in the various damage case reports. For example, there are instances in which claims were made that a contaminant plume had migrated offsite even though there were no offsite monitoring wells to confirm the claim. Due to the dearth of groundwater monitoring on facilities' boundaries (or beyond) EPA could not identify offsite plume migration for most sites, except in the rare instances drinking water wells had been contaminated. Consequently, only 10 of the 70 alleged cases submitted by EIP in 2010 were designated as proven damage cases.

In addition, factual errors were identified in certain instances; for example, certain allegations of groundwater contamination were based on surface water standards (rather than groundwater standards). Corrections or updated facts are reflected in EPA's damage case assessment. Nevertheless, EPA was able to validate a significant number of EIP's claims; for example, as of 2011, EPA was able to confirm that a significant portion of the damage cases in EIP's 2010 report involved both landfills and surface impoundments, most of which involved units with either no liner or a substandard liner system. And for many of EIP's damage cases, EPA was able to confirm sufficient details to classify them as potential damage cases.

However, EPA disagrees with most of the arguments minimizing the significance of the damage case record. First, cases where contamination has been remediated remain relevant to this rulemaking. EPA is relying on the damage cases to evaluate the extent and nature of the risks associated with particular CCR management practices. Facts demonstrating the consequences from particular activities therefore remain relevant, particularly (although not solely) where the management

²⁰⁴ Examples include boron's One-Day and Ten-Day Health Advisory (3.0 mg/L) and the Longer Term Health Advisory (2.0 mg/L) levels for children; manganese's Long Term Health Advisory (LTHA: 0.3 mg/L) level; and sulfate's Drinking Water Advisory (DWA: 500 mg/L) level in groundwater have been exceeded each in between over 60 and close to 80 of both the alleged and damage case sites and those sites preceding the 2010 EIP reports.

practices continue to occur. In other words, what matters in this regard are facts that provide information on the reasons that unit leaked, the particular contaminants that were present, the levels of those contaminants, and the nature of any impacts caused by that contamination. None of these facts are affected by whether the damage is ultimately mitigated or remedied. This is entirely consistent with RCRA section 8002(n), which requires EPA to evaluate the "potential danger, if any, to human health and the environment from the disposal and reuse of such materials" in addition to "documented" damage cases. 42 U.S.C. 6982(n)(3)–(4). Accordingly, the fact that any contamination has subsequently been remediated is not a basis for disregarding a damage case. Moreover, EPA is not relying on these damage cases to evaluate the adequacy of state programs, although it may ultimately provide information relevant to such findings. Therefore the adequacy of the state's response, or the lack thereof, is also not relevant to whether particular damage cases are appropriately considered as part of this rulemaking.

EPA also disagrees that only the presence of receptors within the impact sphere of a contaminating facility merits consideration of a particular damage case. EPA's longstanding and consistent policy across numerous regulatory programs has been that groundwater contamination is a significant concern that merits regulatory action in its own right, whether or not the aquifer is not currently used as a source of drinking water. Sources of drinking water are finite, and future users' interests must also be protected. The absence of current receptors is therefore also not an appropriate basis on which to discount damage cases. And for all of the reasons discussed above, EPA also disagrees that only exceedances of health-based standards of contaminants that have migrated off-site (*i.e.*, only proven damage cases) should be accounted for as part of this rulemaking.

The Agency also disagrees with the claims that the number of damage cases is "sparse," the majority of which involve only "outdated CCR management practices" in older facilities, and therefore are not relevant to determining the current risks from CCR mismanagement. Even assuming that only "proven" damage cases were relevant, to date, EPA has confirmed a total of 40 proven damage cases, which is hardly "sparse." And when "potential" damage cases are considered, the totals rise to 157; this is the largest number of damage cases in the history of the RCRA program.

Further, these numbers likely underestimate the true number of cases in which CCR units are contaminating groundwater. In reality, the damage case record represents only a subset of those CCR waste units that have effective groundwater monitoring. As discussed in Unit IV.A of this document, a significant portion of CCR surface impoundments still lack groundwater monitoring, and only approximately 80% of the recently commissioned impoundments (*i.e.*, since about 1994) have groundwater monitoring.

In addition, under many state programs existing impoundments are exempt from groundwater monitoring and once monitoring is put in place, new damage cases quickly emerge. This is illustrated by two lines of evidence: First, in the wake of the 2008 TVA Kingston CCR spill two states required utilities for the first time to install groundwater monitoring. Illinois required facilities to install groundwater monitoring down gradient from their surface impoundments. As a result, within only about two years, Illinois detected seven new instances of primary MCL exceedances and five additional instances with exceedances of SMCLs. The data for all twelve sites were gathered from onsite; it appears none of these facilities had been required to monitor groundwater off-site, so whether the contamination had migrated off-site is currently unknown.²⁰⁵ Similarly, North Carolina required facilities to install additional down gradient wells. In January 2012, officials from the North Carolina Department of Environment and Natural Resources disclosed that elevated levels of metals have been found in groundwater near surface impoundments at all of the State's 14 coal-fired power plants.²⁰⁶

Second, states with effective programs for groundwater monitoring tend to have a larger record of damage cases (*e.g.*, Wisconsin, nationally ranked as the 32nd CCR disposer in 2011, has 14 damage cases) as compared to states with less stringent groundwater

²⁰⁵ See EIP's December 2011 *Risky Business: Coal ash Threatens America's Groundwater Resources at 19 More Sites*, docket document EPA-HQ-RCRA-2011-0392-0259, appendix A3. www.environmentalintegrity.org/.../121311EIPThirdDamageReport.pdf and *Illinois EPA's Ash Impoundment Strategy Progress Reports*, February 10 and October 2011, accessed Online July 15, 2014: <http://www.epa.state.il.us/water/groundwater/publications/ash-impoundment-progress.pdf> and <http://www.epa.state.il.us/water/ash-impoundment/documents/ash-impoundment-progress-102511.pdf>.

²⁰⁶ Groundwater Monitoring Data for Coal Ash Ponds, NC DENR: <http://portal.ncdenr.org/web/wq/hot-topics/coalashregulation/gwmonitoring>. Accessed Online July 15, 2014.

monitoring requirements (e.g., Texas, nationally ranked as the second largest CCR disposer in 2011, has only three confirmed, potential damage case).

Nor is it accurate that the majority of these damage cases involve older units that no longer reflect current management practices or state requirements. The commenters point to the fact that the majority of cases involve units constructed before current state landfill regulations were promulgated, and thus lack liners and leachate collection systems. EPA agrees that the majority of cases do involve such units, but this hardly reflects “outdated” or irrelevant management practices. As discussed in Unit IV.A of this document, the majority of CCR continues to be managed in older (i.e., constructed pre-1994) units that lack liners and leachate collection systems, and will in fact continue to be managed in such units for at least the near future.

Approximately six percent of the waste units associated with groundwater impacts have been constructed from 1990 onwards. Considering there is a lag time between the construction of many of the disposal units and the first detection of their groundwater impact by subsequently installed groundwater monitoring wells, the absence of damage cases associated with newer units is neither unexpected nor dispositive as to the level of risk such units pose.

Finally, a number of other factors support the conclusion that the current number of damage cases likely underestimate the current risks. First, the combined effect of a number of current state regulatory provisions is to decrease the instances in which off-site contamination will be detected (or on-site contamination will need to be remediated). For example, several states have adopted “buffer zones” where certain standards may not apply; Florida designates certain areas as a “Zone of Discharge” (ZOD), in which numerical primary and secondary drinking water standards do not apply; this exemption extends even beyond the ZOD, unless ordered specifically by the state. In addition, secondary maximum contaminant levels (SMCLs) are not applicable to existing industrial facilities discharging to groundwater in the state.²⁰⁷ In other instances, states grant waivers to certain facilities that

²⁰⁷ Illinois uses a similar concept: Groundwater Mixing Zone; North Carolina waives any compliance requirements for constituents in exceedance of the state’s groundwater standards that are confined to monitoring wells within the Compliance Boundary; and in Pennsylvania and Tennessee, state laws do not require state response to onsite exceedances of secondary MCLs.

exceed health-based standards several-fold.²⁰⁸ Certain states (e.g., Indiana) consider surface impoundments as temporary storage facilities as long as they are dredged on a periodic basis (e.g., annually). Under these states’ rules, such impoundments are exempt from any solid waste regulations that would require groundwater monitoring, and from requirements for corrective action.²⁰⁹ Such requirements are likely to decrease the instances in which contamination above an MCL has migrated off-site will be detected. Second, the record documents several instances where, once the contaminant plume has migrated off-site and impacted private water wells, the utility has purchased these properties, thereby rendering the off-site contamination, “on-site.” At times, this practice (which is condoned by the state) has expanded the ZOD to well beyond its original boundary. Once the status of the contaminant plume changes from off-site migration, which typically requires remedial action, back to onsite containment, this can affect the kind of corrective action the state requires of the utility (or indeed whether any will be required).

E. Characterization of Impacts Associated With CCR Units

1. CCR Waste Unit Types Associated With Damage Cases

EPA’s documented record of confirmed damage cases is dominated by wet-disposal and treatment modes: Surface impoundments, cooling ponds, and artificial wetlands constitute close to half of the total number of implicated waste units. In comparison, dry disposal modes such as landfills, sand and gravel pits, storage piles for coal ash and FGD, and certain structural fills account for about one third of the confirmed damage cases.²¹⁰ Sand and gravel pits and quarries as well as structural fills, comprise about ten percent of all the unit types that are associated with damage cases.

2. Contaminants of Concern (COCs)

Because the list of constituents to be monitored in groundwater varies from permit to permit and among states, accurate estimates of the frequency of

²⁰⁸ The observations cited in the following pertain to groundwater quality. Regarding surface water quality, NPDES permits in many states commonly have very limited requirements for monitoring discharge constituents, excluding all or most of the heavy metals.

²⁰⁹ E.g., Duke Energy’s Gibson Generating Station, Princeton, Indiana, a proven damage case.

²¹⁰ Facilities with both wet and dry disposal waste units are implicated in less than twenty percent of the cases.

constituents associated with groundwater impacts nationwide cannot be made with confidence. Based on the available monitoring records, the most prevalent contaminant among the primary MCLs identified in damage cases is arsenic, whereas the most prevalent contaminants identified among the secondary MCLs are sulfate and boron. Similarly, disparities from one permit to another as to which constituents are monitored in NPDES discharges from CCR impoundments limit EPA’s ability to identify trends associated with contaminants of concern. Based on the Agency’s record of all of the confirmed damage cases, it can be only established that the most prevalent COCs with respect to Primary Water Quality Criteria (WQCs) exceedances in surface water, and/or of cleanup standards in sediments and soils are selenium and arsenic, and for Secondary WQCs or cleanup standard exceedances, are boron and iron.²¹¹

The high mobility of boron and sulfate explains the prevalence of these constituents in damage cases that are associated with groundwater impacts. Damage cases impacting surface water that have also a documented ecologic impact comprise the largest subset of proven damage cases (over 40 percent). The most prevalent COC here is selenium, the bioaccumulative effects of which have caused abnormal mortality rates and sublethal effects such as histopathological changes and damage to reproductive and developmental success, adversely impacting aquatic populations and communities of fish and amphibians. Such impacted communities, residing both in lentic (e.g., cooling water lakes) and lotic (e.g., small to medium-size streams) settings that receive regulated (i.e., via permitted outfalls) and unregulated (i.e., via seepage) discharge from CCR impoundments were documented and rather extensively studied in several sites (e.g., in Texas, North Carolina, and South Carolina).^{212 213}

²¹¹ For a list of the key metals found in CCR wastewater and examples of the environmental concerns associated with them, see *Steam Electric Power Generating Point Source Category: Final Detailed Study Report*; EPA 821-R-09-008, October 2009: http://water.epa.gov/scitech/wastetech/guide/steam-electric/upload/Steam-Electric_Detailed-Study-Report_2009.pdf.

²¹² In validation of the findings of the Risk Assessment accompanying this rule, EPA has documented numerous damage cases where selenium in CCR wastewater discharge into surface waters triggered the issuance of fish-consumption advisories as well as selenium MCL exceedances in groundwater, suggesting that selenium concentrations in CCR wastewater constitute a human health risk.

²¹³ According to the draft Steam Industry’s Effluent Guidelines EA, the steam electric power

There are fewer recorded instances of surface water damage cases involving the heavy metal COCs such as antimony, beryllium, mercury, and thallium than of groundwater damage cases. It is unclear whether this genuinely reflects lower potential risks via this route of exposure. Intrinsic differences between the chemical and physical parameters of surface water and groundwater (e.g., the higher redox potential and the larger flow-rate of the former) would accelerate the removal of many metals from surface water through precipitation and/or adsorption and facilitate a greater dilution. However, as noted, NPDES permits in many states commonly have very limited requirements for monitoring discharge constituents, excluding all or most of the heavy metals, so this cannot be ruled out as at least a contributing factor.²¹⁴

3. Failure/Impact Modes

The CCR damage case record shows the following prevalent impact modes (more than one possible impact type per generating facility site is possible): Slightly over half of the recorded impact cases are associated with groundwater; about ten percent are associated with surface water, which quite frequently is also accompanied by documented ecological impacts and/or with the contamination of soils and/or river sediments; over one third are associated with both groundwater and surface water impacts; and about four percent are associated with catastrophic surface impoundment failures.

The established damage case record includes ten sites involving exceedances of primary MCLs that have impacted drinking water wells. In all of these cases, the implicated utility provided alternative potable water to well water users.²¹⁵ Three of the damage cases

sector is responsible for a significant fraction of the toxic pollutants reported to be discharged in industrial National Pollutant Discharge Elimination System (NPDES) permits.

²¹⁴ This issue is illustrated by the very limited monitoring record on mercury exceedances in surface water as compared to the extensive documentation of mercury impacts revealed in studied surface water that receive steam industry effluents. These studies have documented fish and invertebrates exposed to mercury from CCR wastewater exhibiting elevated levels of mercury in their tissues and developing sublethal effects such as reduced growth and reproductive failure. For an excellent summary of surface water ecologic and human health risks and impacts study results, see the cited Steam Electric Power study report.

²¹⁵ These proven damage cases include eight cases where the utility was directed by the state to provide an alternative water supply (NIPSCO Yard 520, IN; Constellation Energy Gambrells, MD; Don Frame Trucking, NY; Bruce Mansfield, PA; Trans Ash Landfill, TN; VEPCO Chisman Creek, VA; Stoneman, WI; and WEPCO Highway 59, WI); and

were listed on the National Priority List as Superfund sites,²¹⁶ and one is a Superfund Alternative (SA) site.²¹⁷ In the course of reassessing the pre-EIP 2010 damage cases and vetting EIP's alleged damage cases, the Agency rejected two other Superfund damage cases, because in addition to CCR, these site had also accepted large volume of non-CCR waste.²¹⁸

Four major releases of CCR sludge associated with surface impoundment dike or pipe failure resulted in significant coal slurry releases,²¹⁹ causing fish kills and other ecologic damage, and in some instances damage to infrastructure. In the Clinch River spill, for instance, it was estimated that 217,000 fish were killed in a 90-mile stretch of the river in Virginia and Tennessee. The Clinch River plant coal ash had a high free lime content, which

two instances in which the utility provides substitute water to residents on a voluntary basis (Gibson Station, IN, and Colstrip, MT). In three additional, potential damage cases (Oak Creek, WI; Battlefield Golf Course, VA; and Joliet Station 9, IL), the utilities provide substitute water—out of abundance caution—to adjacent residential properties whose water wells were impacted by secondary MCL exceedances, and in two additional cases, the electrical utility was instructed by state regulators to provide substitute water to residential properties which either have had their drinking water wells impacted by trace amounts of thallium, within the State and the federal standards (Asheville, NC) or by exceedances of boron (Sutton, NC). Finally, in one case (Belews Creek, NC) the electric utility agreed to co-fund upgrading of potable water treatment plants in two municipalities to eliminate trihalomethanes, a carcinogenic by-product of power plant scrubber, bromide-containing river water subject to water treatment employing chlorine.

²¹⁶ OU-12, Oak Ridge, Tennessee (an NPL site between 1989 and 1997); VEPCO, Chisman Creek, Virginia (an NPL site between 1983 and 1988); and the Lemberger Landfill, Wisconsin (1986 to present).

²¹⁷ Town of Pines Groundwater Plume, Indiana (SA: 2003–Present): http://www.epa.gov/region5/superfund/npl/sas_sites/INN000508071.htm. The Site is not listed on the National Priority List (NPL) although it qualifies for such listing. The SA approach uses the same investigation and cleanup process and standards that are used for sites listed on the NPL, while it can potentially save the time and resources associated with listing a site on the NPL. As long as a PRP enters into an SA approach agreement with EPA, there is no need for EPA to list the site on the NPL.

²¹⁸ These are the formerly proven damage case of Salem Acres, Massachusetts (originally addressed in the 2007 *Coal Combustion Waste Damage Case Assessments Report*), and Industrial Excess Landfill, Uniontown, Ohio, an alleged damage case submitted by EIP in *In Harm's Way*, 2010.

²¹⁹ These catastrophic releases involved the release of 1.1×10^9 , 2.7×10^8 , 1.3×10^8 , and 1×10^8 gallons of CCR slurry at the spills of the 2008 Kingston TVA, Tennessee; the 2014 Dan River, North Carolina; the 1967 Clinch River, Virginia; and the 2005 Martins Creek, Pennsylvania, respectively.) In addition, the possible ecologic impacts of two consecutive, 30 million gallons each, of CCR slurry releases (in 2007 and 2008) by the Eagle Valley power plant in Indiana have not been assessed.

reacted with water in the settling pond to form an alkaline calcium hydroxide. As a result, during the release, pH was elevated to levels as high as 12.7. The high-toxicity shock also decimated benthic macro-invertebrate populations for a distance of over three miles below the spill site, and snails and mussels were eliminated for over 11 miles below the Clinch River power plant.

As demonstrated in the aftermath of the 2008 coal ash spill in TVA Kingston, Tennessee, large impoundment dike breach incidents result in impacts to soil and river sediments. In a study conducted few months after the spill, Emory River's downstream sediments showed high mercury concentrations similar to those detected in the coal ash (115–130 $\mu\text{g}/\text{kg}$).²²⁰ According to this study, the ecological effects of mercury in the coal ash and sediments depend on the chemical mobility of mercury in the solids and the potential for mercury methylation in the impacted area. Previous studies have shown that sulfate addition can promote methylation in freshwater ecosystems by stimulating sulfate reducing bacteria, the primary organisms responsible for producing methylmercury in the environment. In coal-ash-containing waters, a 10- to 20-fold increase in SO_4^{-2} concentrations was observed in the Emory River Cove area relative to unaffected upstream sites. Therefore, the methylation potential of mercury from this material could be high because the coal ash also provides an essential nutrient (SO_4^{-2}) that encourages microbial methylation. In addition, leaching of contaminants from the coal ash caused contamination of surface waters in areas of restricted water exchange and slight elevation down gradient. The accumulation of arsenic-rich fly ash in bottom sediment in the Emory River's aquatic system could cause fish poisoning via both food chains and decrease of benthic fauna that is a vital food source. Another recent study estimates that the damage to fish and other wildlife incurred by both permitted and unpermitted CCR effluent discharge at some 22 sites amounts to over \$2.3 billion.²²¹

²²⁰ *Survey of the Potential Environmental and Health Impacts in the Immediate Aftermath of the Coal Ash Spill in Kingston, Tennessee*. Laura Ruhl et al., Environ. Sci. Technol. Published online on May 4, 2009. Volume 43 (16), pp 6326–6333: <http://pubs.acs.org/doi/abs/10.1021/es900714p>.

²²¹ A. Dennis Lemly and Joseph P. Skorupa: *Wildlife and the Coal Waste policy Debate: Proposed Rules for Coal Waste Disposal Ignore Lessons from 45 Years of Wildlife Poisoning*. Environ. Sci. Technol., 27 July, 2012.

a. Construction Year and First Detection Year

Slightly over half of the CCR waste units identified as the source of groundwater contamination in the damage cases were commissioned in the 1970s and 1980s, two boom decades of coal-fueled power generation growth in the U.S. Whereas the majority of the CCR waste units associated with damage cases were constructed before 1990, approximately six percent of the units in the damage cases (where the commissioning date is known) became operational after 1990. For 61 units with known commissioning dates, the median lag time between commissioning and the first detection of impact to groundwater is about 20 years. However, considering the large range of lag time values (between less than one year and 50 years) the recorded median lag time most probably reflects additional variables. Possible variables include monitoring wells that were installed after many of the waste units were already well into their operating stage, and the variable hydraulic conductivity of the impoundment's substrate (including the effectiveness of its liner, if any), both of which will determine how quickly groundwater contamination is first detected. Overall, the evidence about the lag time between the commissioning of a waste unit and the first detection of the impact of its leakage implies that most likely there are prospective damage cases that have not yet been identified, challenging industry's claims that the damage cases represent the legacy of a bygone regulatory regime.

b. Liners

Of the waste units implicated in damage cases to groundwater with information on liners, over 90 percent have either no liners, some sort of ash-based liners (*e.g.*, Poz-O-Tec, an FGD/lime-conditioned liner), or only partial- or high-permeability (*e.g.*, concrete) liners. The majority of the remaining CCR waste units is either clay-lined and/or has a recognizably-failed liner. Considering that over a half of CCR waste units associated with groundwater impacts were constructed in the 1970s and 1980s, historic information on liner prevalence and composition is highly pertinent. According to the February 1988 Report to Congress on coal combustion wastes ("RTC I"), before 1975 less than 20 percent of all generating facility units managed their CCR in lined disposal units, and in generating facility units constructed since 1975, the share of

lined units grew to over 40 percent.²²² However, as late as in the mid-1980s, about three-quarters of all CCR units (87 percent of surface impoundments and 39 percent of landfills) were still unlined.²²³

In the mid-1990s, the estimated prevalence of unlined landfills still ranged between 43–57 percent, and between 71–72 percent for surface impoundments.²²⁴ According to the March 1999 Report to Congress on wastes from the combustion of fossil fuels (RTC II), the most prevalent liner type was compacted clay (about one-half of all lined landfills, and about 80-percent of all lined surface impoundments). Composite and/or synthetic liners were significantly more prevalent in landfills than in surface impoundments. Based on recent EPA data,²²⁵ the use of liners is still more prevalent in landfills than in surface impoundments.

c. Geographic Distribution

Close to 70 percent of all the established damage cases occur in EPA Regions 5, 4, and 3 (in descending frequency, Region 5: 34 percent; Region 4: 28 percent; and Region 3: seven percent).²²⁶ This distribution correlates well with the regional distribution of *unlined* CCR units in the mid-1980s.²²⁷

²²² Wastes from the Combustion of Coal by Electric Utility Power Plants (First Report to Congress), EPA/530-SW-88-002, February, 1988, pages 4–30 to 4–33: <http://www.epa.gov/osw/nonhaz/industrial/special/fossil/coal-rtc.pdf>.

²²³ These statistics are based on about 42 percent of the total CCR units at that time, for which liner information was available. RTC I attributes this low percentage to the common practice of disposal in off-site units, for which liner information was not available.

²²⁴ Based on three different partial surveys cited in the Second Report to Congress (RTC II, 1999): *Wastes from the Combustion of Fossil Fuels, Volume 2—Methods, Findings, and Recommendations* (Second Report to Congress), EPA 530-R-99-010, March 1999: http://www.epa.gov/osw/nonhaz/industrial/special/fossil/volume_2.pdf.

²²⁵ EPA compiled the baseline use of bottom liners by CCR landfills and surface impoundments from the following sources: (1) Impoundment data from EPA/OSWER's 2009–2011 impoundment dam integrity site inspections; <http://www.epa.gov/waste/nonhaz/industrial/special/fossil/surveys2/index.htm>; (2) Impoundment data from ORCR's 2009 Information Collection Request (ICR) addressing power plants with impoundments; <http://www.epa.gov/waste/nonhaz/industrial/special/fossil/coalashletter.htm>; and (3) Landfill and impoundment data from EPA Office of Water's 2010 ICR addressing power plants to be affected by the Steam Electric Power Generating Effluent Guidelines: http://water.epa.gov/scitech/wastetech/guide/steam_index.cfm#point6.

²²⁶ See <http://www.epa.gov/aboutepa/#regional> for a list of states covered by each EPA Regional office.

²²⁷ According to the Report to Congress I (1988), in the mid-1980s, the distribution of unlined CCR waste units across EPA regions was as follows: For

d. Current CCR Waste Unit Status

As of mid-2011, close to half of the combined (proven and potential) damage case CCR waste units were still active; about a quarter were inactive due to either closure of the individual disposal unit, a fuel switch (*e.g.*, from coal to gas) by the generating facility, or the decommissioning of the facility. Another quarter or so represented power generating facilities where CCR waste units (primarily impoundments) that failed to comply with state requirements had been closed and replaced by other, new disposal units, and/or the generating facilities switched from wet-to dry disposal. Since mid-2011, the percentage of inactive CCR units associated with groundwater damage cases has further increased, due to the continued drop in power demand during the economic recession, which has resulted in power station temporary removal from active service (*i.e.*, mothballing) and closures, combined with an increasing switch by many facilities to a more cost-effective fossil fuel (*i.e.*, natural gas).

F. Conclusions

EPA now has a significantly better understanding of CCR damage cases than when the proposed rule was issued. First, damage cases are more numerous than previously contemplated and as more monitoring well systems are installed, the number of damage cases is likely to increase. Second, the CCR damage case record corroborates the findings of the risk analysis by demonstrating the greater vulnerability of groundwater (and surface water) to wet disposal (*i.e.*, surface impoundments). Third, the damage cases show a direct correlation between the absence of liners and groundwater impacts, and illustrate that whereas in general the design of waste units—particularly surface impoundments—has improved over time, a notable portion of CCR impoundments constructed in the last two decades still lack a protective liner, thus presenting a potential threat to groundwater. Finally, a recent CCR spill incident²²⁸ demonstrates that inactive surface impoundments that have not been properly decommissioned (*i.e.*, by breaching, dewatering, and capping or by clean-closing) continue to pose a

surface impoundments: 31.7 percent (Region 4); 18.6 percent (Region 5); 6.2 percent (Region 7); and 3.5 percent (Region 3). For landfills: 11.1 percent (Region 5); 2.9 percent (Region 3); and 2.4 percent (Region 4).

²²⁸ The Duke Energy's Dan River, North Carolina, February 2, 2014 CCR slurry spill.

significant risk to human health and the environment.

XII. Summary of Regulatory Impact Analysis

EPA estimated the costs and benefits of the final rule. The Regulatory Impact Analysis (RIA) is available to the public in the docket for this action.

A. Costs of the Final Rule

The estimated costs of the final rule are summarized in Table XII–A below. These are the incremental costs above the “baseline.” *i.e.*, the current costs for managing CCR absent this regulation. The baseline takes into account existing

state regulations for managing CCR now and into the future. To the extent that some states may have granted waivers or variances for certain provisions of State requirements, or in other instances may have added extra pollution control requirements above existing regulatory requirements to some specific permits issued to electric utility plants for operating CCR management units, the RIA did not take those actions into account.

EPA used the following data sources to create a model for the RIA that estimates the costs and benefits of the rule: (1) 2012 DOE EIA–923 database;

(2) ORCR’s 2009–2012 CCR impoundment site inspections; (3) impoundment data from ORCR’s 2009 mail survey to plants with CCR impoundments; (4) landfill and impoundment data from EPA Office of Water’s 2010 mail survey to power plants in support of the 2013 proposed Steam Electric Power Generating Effluent Limitation Guidelines; (5) Integrated Planning Model (IPM) v. 5.13 (for the future projection of coal consumption by electric utility plants); and (6) the 1995 Electric Power Research Institute (EPRI) Co-management Survey.

TABLE XII–A—ESTIMATED COST OF POLLUTION CONTROLS REQUIRED BY THE CCR FINAL RULE
[Millions 2013\$]

CCR pollution control	@ 3% discount rate		@ 7% discount rate	
	Annualized values	Present values	Annualized values	Present values
1. Groundwater monitoring	\$4.79	\$151	\$2.80	\$39.9
2. Bottom liners	491	15,500	297	4,230
3. Leachate collection system (landfills only)	51.6	1,630	18.4	263
4. Fugitive CCR dust controls	7.09	224	3.36	48.0
5. Stormwater run-on/run-off controls	18.8	594	13.0	186
6. Location restrictions	43.6	1,380	20.0	285
7. Closure capping	20.1	630	12.0	171
8. Post-closure groundwater monitoring (30 years)	0.08	2.40	0.04	0.61
9. Impoundment structural integrity requirements	10.9	344	11.1	158
10. Corrective action (CCR contaminated groundwater cleanup)	19.0	600	19.1	273
11. Reporting and recordkeeping	26.3	831	27.3	389
12. Conversion to dry CCR handling	29.0	916	57.3	818
13. Inactive impoundments (dewater and closure cap)	12.0	380	26.7	381
14. Subtotal industry costs (1+...+13)	734	23,200	508	7,240
State Agency Burden Costs				
15. Impoundment structural integrity requirements	0.22	6.88	0.22	3.16
16. Corrective action	0.38	12.0	0.38	5.45
17. Reporting and recordkeeping	0.53	16.6	0.55	7.78
18. Subtotal State agency burden costs (15+16+17)	1.12	35.5	1.15	16.4
19. Total cost (14+18)	735	23,200	509	7,260

B. Benefits of the Final Rule

The RIA contains two categories of benefits (1) benefits that are monetized and (2) non-monetized benefits. The RIA estimates 11 categories of expected

future human health and environmental benefits for the CCR rule. These include reduced future CCR impoundment structural failure releases; reduced future CCR groundwater contamination; improved air quality from reduced

power plant air pollution; and surface water quality benefits. The estimated value of each of the 11 monetized benefits is presented in Table XII–B below.

TABLE XII–B—EPA ESTIMATED MONETIZED BENEFITS FOR THE CCR FINAL RULE
[Millions 2013\$ over 100-year period of analysis 2016–2114]

	3% discount rate		7% discount rate	
	Annualized	Present value	Annualized	Present value
1. Reduced CCR impoundment structural failure releases	\$156	\$4,910	\$143	\$2,040
2. Reduced CCR landfill & impoundment groundwater contamination ...	12.8	405	9.86	141
3. Induced increase in future annual CCR beneficial uses	117	3,130	79.0	1,120
4. Reduced incidence of cancer from CCR exposure	<0.1	0.17	<0.1	<0.1
5. Avoided IQ losses from mercury in CCR	0.28	8.80	<0.1	0.35
6. Avoided IQ losses from lead in CCR	0.186	5.87	<0.1	0.23
7. Reduced need for specialized education (associated with 5 & 6 above)	<0.1	<0.1	<0.1	<0.1
8. Non-market surface water quality benefits	2.26	71.4	1.89	27.0

TABLE XII-B—EPA ESTIMATED MONETIZED BENEFITS FOR THE CCR FINAL RULE—Continued
[Millions 2013\$ over 100-year period of analysis 2016–2114]

	3% discount rate		7% discount rate	
	Annualized	Present value	Annualized	Present value
9. Protection of threatened & endangered species near CCR impoundments	0.91	28.7	0.76	10.8
10. Improved air quality from induced changes to power plant emissions	4.66	147	2.04	29.1
11. Reduced power plant groundwater withdrawals	<0.1	<0.1	<0.1	<0.1
12 Total monetized benefits (1 + . . . + 11)	294	8,710	236	3,360

In addition to the monetized benefit categories, the RIA describes 11 additional non-monetized benefit categories. Due to uncertainties and weaknesses in supporting documentation for quantifying and monetizing these benefits, the RIA presents these benefits separately from the benefits listed above, and does not include them in the quantified comparison of benefits and costs. These non-monetized benefits include:

1. Financial market benefits
2. Reduced community dread of CCR impoundment structural failure releases
3. Reduced health and property nuisance impacts from CCR fugitive dust
4. Cancer and non-cancer human health benefits from reduced CCR

contamination of fish consumed by recreational anglers and subsistence fisher households in surface waters near power plants (additional to monetized avoided health effects)

5. Cancer and non-cancer human health benefits from reduced CCR exposure by other recreational users of surface waters near power plants (additional to monetized avoided health effects)
6. Avoided CCR contamination of sediments in surface waters near power plants
7. Water quality benefits from avoided CCR contamination treatment costs for use of surface waters for drinking and irrigation water supply
8. Commercial fisheries benefit in surface waters near power plants

9. Increased participation in water-based recreation near power plants

10. Avoided fish impingement and entrainment mortality from power plant water intakes (induced conversion to dry CCR handling reduces future water demand for CCR sluicing)

11. Increased property values surrounding electric utility plants (from closure capping and re-vegetation of CCR surface impoundments)

The total monetized benefits less the total costs of the rule provide the net monetized benefits of the rule. Table XII-C summarizes the total costs and benefits as well as the net benefits of the rule.

TABLE XII-C—EPA ESTIMATED INCREMENTAL COSTS & BENEFITS OF THE CCR RULE
[Millions 2013\$ over 100-year period of analysis 2015–2114]

	3% discount rate	7% discount rate
A. Annualized Values.		
A1. Total Costs	\$735	\$509
A2 Total monetized benefits	294	236
A3. Net Benefits (A2–A1)	(441)	(273)
A4. Benefit to Cost Ratio (A3/A1)	0.40	0.46
B. Present Value.		
B1. Total Costs	23,200	7,260
B2 Total monetized benefits	8,710	3,360
B3. Net Benefits (B2–B1)	(14,490)	(3, 900)
B4. Benefit to Cost Ratio (B2/B1)	0.38	0.46

XIII. Uniquely Associated Wastes

By way of this rule, EPA is codifying in § 261.4(b)(4) a list of low volume waste that when co-disposed with CCR are not subject to hazardous waste regulations. These wastes are also referred to as uniquely associated wastes. However, these uniquely associated wastes are subject to hazardous waste regulations when they are not co-disposed with CCR.

In a letter to EPA dated October 10, 1980 the Utility Solid Waste Activities Group (USWAG) suggested interpretive language that EPA should adopt regarding the amendments to the Solid

Waste Disposal Act Amendments of 1980 which address fossil fuel combustion wastes. EPA replied to USWAG by letter dated January 13, 1981 (known as the 1981 Dietrich letter), and addressed, among other issues, other associated wastes generated in conjunction with the burning of fossil fuels.²²⁹ EPA stated that “We believe it is appropriate, in the light of Congressional intent, to interpret the § 261.4(b)(4) exclusion to include other wastes that are generated in conjunction with the burning of fossil

²²⁹ See letter from Gary N. Dietrich to Paul Elmer, USWAG, available in the docket for this rule.

fuels and mixed with and co-disposed or co-treated with fly ash, bottom ash, boiler slag and flue gas emission control wastes.” When amendments to the 1980 Solid Waste Disposal Act were introduced, Congressmen Beville and Rahall stated, respectively:

It is the sponsor’s intention that this list of waste materials in the amendment be read broadly, to incorporate the waste products generated in the real world as a result of the combustion of fossil fuels. We do not believe that these terms should be narrowly read and thus impose regulatory burdens upon those who seek to assist the Nation by burning coal. EPA should recognize that these “waste streams” often include not only the

byproducts of the combustion of coal and other fossil fuels, but also relatively small proportions of other materials produced in conjunction with the combustion, even if not derived directly from these fuels. EPA should not regulate these waste streams because of the presence of these materials, if there is no evidence of any substantial environmental danger from these mixtures. (126 Cong. Rec. H1102).

In the real world, these waste materials do not include solely fly ash, bottom ash, slag, or scrubber sludge. Quite often, other materials are mixed with these large volume waste streams, with no environmentally harmful effects, and often with considerable benefit—as when, for example, boiler cleaning acids are neutralized by being mixed with alkaline fly ash. These appear to me to be environmentally beneficial practices, which EPA should encourage. At the very least, however, the Agency should take no steps to discourage them until it has developed a full factual understanding of the situation. This amendment would assure that EPA allows all persons burning coal to avoid unnecessary regulation of the byproducts produced by that combustion, as those byproducts are currently being managed in the real world, by real people, with real sense. (126 Cong. Rec. H1104).

As such, EPA interpreted 40 CFR 261.4(b)(4) (the Bevill exemption) to mean that wastes produced in conjunction with the combustion of fossil fuels, which are necessarily associated with the production of energy, and which traditionally have been, and which actually are, mixed with and co-disposed or co-treated with fly ash, bottom ash, boiler slag, or flue gas emission control wastes from coal combustion are not hazardous wastes. In the Deitrich letter EPA stated that these other associated wastes include, but are not limited to the following wastes: (1) Boiler cleaning solutions; (2) boiler blowdown; (3) demineralizer regenerant; (4) pyrites; and (5) cooling tower blowdown.

In a February 1988 Report to Congress on Wastes from the Combustion of Coal by Electric Utility Power Plants EPA listed the following low-volume wastes commonly produced in conjunction with the burning of fossil fuels to produce electricity: (1) Boiler blowdown; (2) coal pile run-off; (3) cooling tower blowdown; (4) demineralizer regenerants and rinses; (5) metal and boiler cleaning wastes; (6) pyrites; and (7) sump effluents. Presented for each type of low-volume waste is a brief description of how the waste is generated, typical quantities produced, and the physical and chemical composition of the waste.²³⁰

²³⁰ See <http://www.epa.gov/osw/nonhaz/industrial/special/fossil/coal-rtc.pdf>, pages 3–41 to 3–62. This report addressed wastes generated from the combustion of coal by electric utility power

The source of this information was primarily an August 1981 USWAG/Edison Electric Institute report in response to a request for information in the 1981 Dietrich letter.

In an August 1, 1993 Regulatory Determination the Agency emphasized that co-management of low-volume wastes and large-volume wastes (fly ash, bottom ash, boiler slag, or flue gas emission control wastes from coal combustion) makes the combined waste stream a remaining waste that would be subject to a subsequent Regulatory Determination and provided the list below of management practices that result in combined waste streams that are remaining wastes.²³¹

- Discharge of boiler blowdown to a large-volume waste impoundment,
- Discharge of demineralizer regenerant to a large-volume waste impoundment,
- Discharge of metal cleaning wastes to a large-volume waste impoundment,
- Discharge of boiler chemical cleaning wastes to a large-volume waste impoundment,
- Discharge of plant wastewater treatment effluent to a large-volume waste impoundment,
- Discharge of coal mill rejects to a large-volume waste impoundment,
- Disposal of oil ash in a large-volume waste landfill or impoundment,
- Disposal of plant wastewater treatment sludge in a large-volume waste landfill.

In a 1999 Report to Congress on wastes from the combustion of fossil fuels²³² EPA stated that low-volume wastes are generated as a result of supporting processes that are ancillary to, but a necessary part of, the combustion and power generation processes and provided the following list of low-volume wastes.

- Coal pile run-off
- Coal mill rejects/pyrites
- Boiler blowdown
- Cooling tower blowdown and sludge
- Water treatment sludge
- Regeneration waste streams
- Air heater and precipitator washwater
- Boiler chemical cleaning waste
- Floor and yard drains and sumps
- Laboratory wastes
- Wastewater treatment sludge

The concept of uniquely associated wastes with respect to CCR was first introduced in the May 22, 2000

plants, and did not address comanaged utility coal combustion wastes, other fossil fuel combustion wastes, and wastes from non-utility boilers.

²³¹ <http://www.epa.gov/osw/nonhaz/industrial/special/mineral/080993.pdf>.

²³² http://www.epa.gov/osw/nonhaz/industrial/special/fossil/volume_2.pdf.

Regulatory Determination. Prior to this, these wastes were referred to as other wastes, remaining wastes, or low-volume wastes, that are generated in conjunction with the burning of fossil fuels and mixed with and co-disposed or co-treated with fly ash, bottom ash, boiler slag and flue gas emission control wastes. For the May 22, 2000 Regulatory Determination, the Agency proposed the uniquely associated wastes concept with the intent of being consistent with other wastes covered under the Bevill Amendment (a.k.a., the Bevill exemption), such as mining and mineral processing wastes that the Agency refers to as uniquely associated wastes, and under the Bentsen Amendment for oil and gas exploration and production wastes which are referred to as associated wastes. The Agency recognized that determining whether a particular waste is uniquely associated with fossil fuel combustion involves an evaluation of the specific facts of each case. In the Agency's view, the following qualitative criteria should be used to make such determinations on a case-by-case basis:

(1) Wastes from ancillary operations are not “uniquely associated” because they are not properly viewed as being “from” fossil fuel combustion.

(2) In evaluating a waste from non-ancillary operations, one must consider the extent to which the waste originates or derives from the fossil fuels, the combustion process, or combustion residuals, and the extent to which these operations impart chemical characteristics to the waste.

EPA proposed the following list of wastes that the Agency considered to be uniquely associated wastes (*i.e.*, uniquely associated with the combustion of coal for the generation of electricity at electric utilities and independent power producers and, therefore, covered by the Bevill exemption).

- Coal Pile Run-off
- Coal Mill Rejects and Waste Coal
- Air Heater and Precipitator Washes
- Floor and Yard Drains and Sumps
- Wastewater Treatment Sludges
- Boiler Fireside Chemical Cleaning Wastes

EPA also proposed the following list of wastes that would not be considered uniquely associated wastes.

- Boiler Blowdown
- Cooling Tower Blowdown and Sludges
- Intake or Makeup Water Treatment and Regeneration Wastes
- Boiler Waterside Cleaning Wastes
- Laboratory Wastes
- General Construction and Demolition Debris

- General Maintenance Wastes

EPA requested comments on these proposed lists and received several comments from states, industry, and the environmental community. Industry opposed the “uniquely associated” waste framework, and favors retaining the 1981 “Dietrich Policy.”

Many commenters argued that the Dietrich policy has provided clear guidance on the scope of the Bevill exemption for the past 20 years, and that appropriate waste management practices have been implemented for these wastes. The Dietrich Policy has proven itself effective in furthering congressional intent to recognize certain historic co-management practices provided they are not environmentally harmful. The Association of State and Territorial Solid Waste Management Officials recommended that EPA contact States that have management programs for fossil fuel combustion wastes to determine how to best manage the waste that are uniquely associated or not uniquely associated with fossil fuel combustion wastes. The Hoosier Environmental Council opposed exempting coal wastes and stated that “coal mill rejects and coal pile run-off would not be uniquely associated wastes . . . because neither of these wastes is derived from coal combustion.”

EPA acknowledges that the Dietrich letter has been longstanding policy with regard to CCR uniquely associated wastes and that the Agency has not sought input from States on the issue. Moreover, as evident from the Congressional Record, the Congressional intent was to “include not only the byproducts of the combustion of coal and other fossil fuels, but also relatively small proportions of other materials produced in conjunction with the combustion, even if not derived directly from these fuels.” These other materials would include many of those listed in the Dietrich letter as well as many of those listed in the May 2000 Regulatory determination.

After considering the 1981 Dietrich letter, a copy of which is included in the docket for this rule, the proposed guidance in the May 2000 Regulatory Determination, comments received on the May 2000 Regulatory Determination and the July 2010 proposed rule, EPA has concluded that the 1981 Dietrich letter accurately reflects the intent of Congress when they exempted CCR from hazardous waste regulations. EPA also believes that many of the wastes listed as uniquely associated wastes in the May 22, 2000 Regulatory Determination are also consistent with

the Congressional intent. Therefore, the Agency is finalizing the following list of uniquely associated wastes that includes materials from both the Dietrich letter and the May 2000 Regulatory Determination.

- Coal pile run-off
- Boiler cleaning solutions
- Boiler blowdown
- Process water treatment and demineralizer regeneration wastes
- Cooling tower blowdown
- Air heater and precipitator washes
- Effluents from floor and yard drains and sumps, and
- Wastewater treatment sludges

This list is being codified in 40 CFR 261.4(b): Solid wastes which are not hazardous wastes.

XIV. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

Under section 3(f)(1) of Executive Order 12866 (58 FR 51735, October 4, 1993), this action is an “economically significant regulatory action” because it is likely to have an annual effect on the economy of \$100 million or more. The total annual cost of this final rule is estimated to be \$509 million a year using a 7% discount rate. Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011) and any changes made in response to OMB recommendations have been documented in the docket for this action.

In addition, EPA prepared an analysis of the potential costs and benefits associated with this action. The Regulatory Impact Analysis (RIA) estimated the costs and benefits for this action. The RIA estimated 12 regulatory costs: (1) Groundwater monitoring; (2) bottom liner installation; (3) leachate collection system installation and management; (4) fugitive dust controls; (5) rain and surface water run-on/run-off controls; (6) disposal unit location restrictions (including water tables, floodplains, wetlands, fault areas, seismic zones, and karst terrain); (7) closure capping to cover units; (8) post-closure groundwater monitoring requirements; and (9) impoundment structural integrity requirements; (10) corrective actions (CCR contaminated groundwater cleanup); (11) paperwork reporting/recordkeeping; and (12) impoundment closures and conversion to dry handling. Using a 7% discount rate, the annualized costs are estimated

at \$509 million, and using a 3% discount rate, annualized costs are estimated to be \$735 million. Using a 7% discount rate, the total present value costs are estimated at \$7.3 billion, and using a 3% discount rate the present value of estimated costs is \$23.2 billion.

The RIA estimated 11 monetized benefits: (1) CCR impoundment release prevention; (2) CCR landfill & impoundment groundwater contamination prevention; (3) induced increase in CCR beneficial uses (e.g., concrete, wallboard); (4) reduced incidence of cancer from CCR exposure; (5) avoided IQ losses from mercury; (6) avoided IQ losses from lead; (7) reduced need for specialized education; (8) non-market surface water quality benefits; (9) protection of threatened & endangered species near CCR impoundments; (10) improved air quality from induced changes to power plant emissions and (11) reduced power plant groundwater withdrawals. The annualized monetized benefits are estimated at \$294 million (@ 3% discount rate) and \$236 million (@ 7% discount rate). The total present value monetized benefits are estimated at \$8.7 billion (@ 3% discount rate) and \$3.4 billion (@ 7% discount rate).

B. Paperwork Reduction Act (PRA)

The information collection activities in this rule will be submitted for approval to the Office of Management and Budget (OMB) under the PRA. The Information Collection Request (ICR) document that the EPA prepared has been assigned EPA ICR number 1189.25, OMB control number 2050–0053. You can find a copy of the ICR in the docket for this rule, which will be available in the docket once the ICR has been submitted to OMB for review, and it is briefly summarized here. The information collection requirements are not enforceable until OMB approves them.

These regulations, promulgated under subtitle D of RCRA, constitute national minimum criteria with which facilities must comply without oversight or intervention by a federal or state authority. To address concerns about the absence of regulatory oversight under a subtitle D regulation, EPA has developed a combination of mechanisms, including recordkeeping, notification, and maintaining a publicly accessible Internet site. The increased transparency resulting from these requirements will minimize the potential for owners or operators to abuse the self-implementing system established in this rule. In addition, these requirements provide interested parties the information necessary to

determine whether the owner or operator is operating in compliance with the requirements of the rule and thus will facilitate enforcement by States and private citizens. EPA has consolidated the recordkeeping, notification, and Internet posting requirements into a single section of the regulations in an effort to make these requirements easier to follow. It is important to note that EPA will not be collecting any information under this rule—instead, facilities must keep records, notify the state, and post information on a publicly available Web site. EPA has taken steps to minimize the burden to the regulated community while at the same time achieving the transparency needed to ensure proper implementation of this rule. In addition to the burden to owner and operators of CCR landfills, in an effort to ease implementation, EPA has reporting and recordkeeping requirements for certain beneficial uses and states. For beneficial use that meets the fourth criteria, the user must maintain records and provide documentation upon request. For states, states are encouraged to voluntarily adopt at least the federal minimum criteria through the revision of SWMPs. In addition, EPA estimated the burden on state government agencies associated with the receipt of various notification requirements in the rule.

The respondents/affected entities are the owners/operators of electric utilities and independent power producers that fall within the NAICS code 221112. Specifically, these regulations apply to owners and operators of new and existing landfills and new and existing surface impoundments, including lateral expansions that of all landfills and surface impoundments that dispose or otherwise engage in solid waste management of CCR generated from the combustion of coal at electric utilities. The rule also applies to CCR units located off-site of the electric utilities' or independent power producers' facilities that receive CCR for disposal. The rule applies to certain inactive CCR surface impoundments at active electric utilities' or independent power producers' facilities, if the CCR unit still contains CCR and liquids. Finally, the rule applies to certain beneficial users of CCR. The rule may also impact States that choose to revise their SWMPs.

Respondents are obligated to keep records, make the required notifications, and maintain the publicly available Internet site. These requirements are part of the minimum federal criteria under 40 CFR part 257 and promulgated under the authority of sections 1006(b), 1008(a), 2002(a), 3001, 4004, and 4005(a) of the Solid Waste Disposal Act

of 1970, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984 (HAS), 42 U.S.C. 6906(b), 6907(a), 6912(a), 6944, and 6945(a).

Respondents/affected entities: EPA estimates the total number of respondents to be 486. This number represents the estimated number of coal-fired electric utility plants that will be affected by the rule.

Respondent's obligation to respond: The recordkeeping, notification, and posting are part of the minimum national criteria being promulgated under Sections 1008, 4004, and 4005(a) of RCRA.

Estimated number of respondents: 486.

Frequency of response: The frequency of response varies.

Total estimated burden: EPA estimates the total annual burden to respondents to be approximately 358,957 hours with a three year total estimated burden of 1,076,871 hours. Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: The total estimated annual cost is approximately \$64,007,121; this is composed of approximately \$22,894,608 in annualized labor costs and \$41,112,513 in annualized capital or operation and maintenance costs. The three year total estimated costs are \$192,021,364 composed of \$68,683,824 in labor costs and \$123,337,540 in operations and maintenance.

In addition, developing a state SWMP (see Unit IX of this preamble) is not a requirement under this rule, however, EPA is encouraging states to develop these plans and has developed a burden estimate associated with this activity. The estimate for this one-time activity has been annualized over the three-year period covered by the ICR. The total estimated annual burden (for the 47 states and Puerto Rico where CCR are generated) is approximately 10,880 hours, and approximately \$429,414 in annualized labor costs; this estimate assumes no annualized capital or operations and maintenance costs.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9. When OMB approves this ICR, the Agency will announce that approval in the **Federal Register** and publish a technical amendment to 40 CFR part 9 to display the OMB control number for the approved information collection activities contained in this final rule.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities (SISNOSE). Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this rule on small entities, small entity is defined as: (1) A small business, based on the U.S. Small Business size standard for NAICS code 221112 (fossil fuel electric utility plants), with fewer than 750 employees; (2) a small government jurisdiction, based on the RFA/SBREFA's definition (5 U.S. Code section 601(5)), is the government of a city, county, town, township, village, school district, or special district with population under 50,000; (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities.

The small entities directly regulated by this final rule consist of one small county, 31 small cities, 32 small companies, and 13 small cooperative owner entities that own at least one coal-burning power plant. There are 91 coal-burning power plants that are owned by the 77 small owner entities. Those plants fall into the following categories: One small county plant, 31 small city plants, 42 plants owned by small companies, and 17 small cooperative plants.

The RIA estimated CCR compliance costs as a percentage of revenues for each entity and found that for almost all small entities affected by the rule the estimated annualized costs were less than 1% of revenues.

Although this final rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of this rule on small entities.

D. Unfunded Mandates Reform Act (UMRA)

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531–1538, requires Federal agencies, unless otherwise prohibited by law, to assess the effects of their regulatory

actions on state, local, and tribal governments and the private sector. This rule contains a federal mandate that may result in expenditures of \$100 million or more for state, local, and tribal governments, in the aggregate, or the private sector in any one year. Accordingly, EPA has prepared under section 202 of the UMRA a written statement which is summarized below.

The RIA estimates the rule may affect 414 coal-fired electric utility plants, and may have a nationwide average annualized cost of approximately \$509 million per year (at a 7% discount rate). Of this amount, average annualized costs to State/local governments total \$36 million, and the average annualized cost to the private sector totals approximately \$436 million per year (the remainder of the total costs are the costs associated with compliance at federally-owned electric utility plants.)

Consistent with the intergovernmental consultation provisions of section 204 of the UMRA, EPA initiated pre-proposal consultations with governmental entities affected by this rule. In developing the regulatory options for the CCR rule, EPA consulted with small governments according to EPA's UMRA interim small government consultation plan developed pursuant to section 203 of UMRA. EPA's interim plan provides for two types of possible small government input: Technical input and administrative input. According to this plan, and consistent with section 204 of UMRA, early in EPA's 2009 process for developing the CCR rule, EPA implemented a small government consultation process consisting of two consultation components: (1) A series of meetings in 2009 for purposes of acquiring technical input from State government officials, and (2) letters to 10 organizations representing elected State and local government officials to inform and seek input for the rule's development, as well as to invite them to a meeting held September 16, 2009 in Washington DC to provide input on the rule. Following are the meetings held with state officials in 2009: (1) February 27 with the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) Coal Ash Workgroup (Washington DC), (2) March 22–24 with the Environmental Council of States (ECOS) Spring Meeting (Alexandria VA), (3) April 15–16 with the ASTSWMO Mid-Year Meeting (Columbus OH), (4) May 12–13 with the EPA Region IV State Directors Meeting (Atlanta, GA), (5) June 17–18 with the ASTSWMO Solid Waste Managers Conference (New Orleans, LA), (6) July 21–23 with the ASTSWMO Board of Directors Meeting (Seattle, WA), and (7)

August 12 with the ASTSWMO Hazardous Waste Subcommittee Meeting (Washington DC). ASTSWMO is an organization with a mission to work closely with the EPA to ensure that its state government members are aware of the most current developments related to state waste management programs. ECOS is a national non-profit, non-partisan association of state and territorial environmental agency leaders. As a result of these meetings EPA received letters in mid-2009 from 22 state governments as well as a letter from ASTSWMO expressing their stance on CCR regulatory options.

On August 24, 2009 letters were mailed to the following 10 organizations, which include representation from small government elected officials, to inform and seek input for the rule development, as well as to invite them to a meeting held September 16, 2009 in Washington DC: (1) National Governors Association, (2) National Conference of State Legislatures, (3) Council of State Governments, (4) National League of Cities, (5) U.S. Conference of Mayors, (6) County Executives of America, (7) National Association of Counties, (8) International City/County Management Association, (9) National Association of Towns and Townships, and (10) Environmental Council of the States. These 10 organizations representing State and local government officials are identified in EPA's November 2008 Federalism guidance as the "Big 10" organizations appropriate to contact for purpose of consultation with small government elected officials.

Consistent with section 205, EPA identified and considered a reasonable number of regulatory alternatives in the June 2010 proposed rule, and is adopting the least-costly approach (*i.e.* a modified version of the "D Prime" least costly approach presented in the 2010 proposed CCR rule).

This rule is not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. The threshold amount established for determining whether regulatory requirements could significantly affect small governments is \$100 million annually. The RIA estimates a \$1.2 million annual cost for state/local government implementation of the rule and \$36 million in annual direct compliance costs on 57 state or local governments. These estimates are well below the \$100 million annual threshold established under UMRA. However this rule does have over a \$100 million dollar impact on industry. EPA

selected one of the lower industry cost options for the final rule by selecting a RCRA subtitle D rule instead of a RCRA subtitle C rule.

E. Executive Order 13132—Federalism

The EPA has concluded that this action may have federalism implications because it imposes substantial direct compliance costs on state or local governments, and the Federal government will not provide the funds necessary to pay those costs. Based on the estimates in EPA's RIA for this action, the final rule, if promulgated, may impose a \$1.2 million annual cost for state/local government implementation of the rule and \$36 million in annual direct compliance costs on 57 state or local governments. This amount exceeds the \$25 million per year "substantial compliance cost" threshold defined in section 1.2(A) (1) of EPA's November 2008 "Guidance on Executive Order 13132: Federalism." There are 57 State and local governments which own 68 coal-burning power plants or 16% of the 414 electric utility plants expected to be affected by this rule. These 57 local governments consist of 7 state governments, 31 small municipality governments, 18 non-small municipal governments and 1 (small) county government owner.

The EPA provides the following federalism summary impact statement. The EPA consulted with state and local officials early in the process of developing the proposed action to permit them to have meaningful and timely input into its development. In developing the regulatory options described in this final action, EPA consulted with 10 national organizations representing state and local elected officials to ensure meaningful and timely input by state/local governments, consisting of two consultation components. This consultation is described and summarized in the UMRA section above.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and state and local governments, EPA specifically solicited comment on the proposed action from state and local officials. EPA received comments from over two hundred (200) entities representing state and local governments. The comments submitted primarily addressed the issue presented in the proposal of which approach to regulating CCR was appropriate—a regulation under subtitle C or under subtitle D of RCRA. The state and local government commenters overwhelming

voiced their opposition to a regulation under subtitle C, citing impacts to state programs if EPA were to bring such a large number of facilities and a large volume of waste into the subtitle C universe. State governments were very concerned with the resources which would be required to issue subtitle C permits to these facilities and to develop and obtain EPA approval of revisions to their authorized RCRA subtitle C programs. They also expressed concerns about the limits in the existing hazardous waste disposal capacity in the United States to absorb such a large volume of new wastes, also citing the financial burden and potential liability problems for cities and towns that operate landfills or use landfills to dispose of waste that might include coal ash.

In addition, states and local governments expressed concern that a subtitle C rule would have a negative effect on beneficial use of CCR and on state beneficial use programs. State and local governments fully supported continued beneficial use of CCR and continuation of the Bevill exemption for CCR beneficial use. They requested that EPA establish standards to ensure that beneficial uses are protective of human health and the environment and ensure consistency in management of these materials throughout the country. They specifically cited the use of CCR in cement and concrete applications, highway construction projects and wallboard manufacture (among other uses) and the impacts to municipalities through increased costs and potential job loss if CCR is classified as a hazardous waste. They also noted an expectation that utility rates would rise as a result of CCR being disposed of in landfills rather than being used for beneficial purposes, due to limited availability of commercial hazardous waste disposal facilities and costs of transporting high volumes of CCR to these facilities. State Departments of Transportation expressed particular concern that a subtitle C rule would negatively affect the use of CCR in road bed. Commenters further supported continued beneficial use of CCR to reduce the need for mining for substitute products in cement and concrete. Finally, should CCR be classified as a hazardous waste, they indicated the need for EPA to clarify that products made using CCR are new products and not considered hazardous wastes, and may be treated in the same manner as similar products made without CCR.

Since EPA is promulgating this regulation under subtitle D, the concerns over the potential effect of a

subtitle C regulation on beneficial use are moot. Moreover in this final rule, EPA has established a definition for beneficial use which we believe makes clear the distinction between beneficial use and disposal. This is fully discussed in Unit VI of this document.

While States supported a rule under subtitle D, they also voiced concern about the need for flexibility to address site-specific situations, as would be available under a state permitting program, and concern about potential inconsistencies between the new federal requirements and existing State programs. States suggested that regulation under subtitle D should embrace the existing state permitting programs—allowing state permitting programs as the foundation for regulating CCR disposal—and requested financial incentives to implement federal criteria through state solid waste programs. They also emphasized the need to allow time for states to make necessary changes in existing state rules and statutes to incorporate federal criteria. A few expressed the desire that financial assurance for closure, post closure care, and corrective action should be included in the final rule as a mechanism to ensure that funds will be provided by owners and operators to carry out these activities.

As fully explained earlier in this document, EPA is promulgating this rule under subtitle D of RCRA. As such, these regulations constitute the minimum federal requirements which apply to CCR units. States are not required to adopt these regulations or to revise their state programs to incorporate the new federal requirements. As fully discussed in Unit V of this document, “Development of the RCRA Subtitle D Regulatory Approach,” sections 1008(a), 4004, and 4005(a) of RCRA (*i.e.*, subtitle D) does not provide EPA with the ability to require states to issue permits, to approve state programs to operate in lieu of the federal program, or to enforce any of the requirements addressing the disposal of CCR. Consequently EPA designed the final rule to ensure protection of public health and the environment within these limitations. In addition, to help address potential implementation challenges that this statutory and resulting regulatory structure impose, as fully set out in Section IX of this document, EPA is encouraging states to revise their Solid Waste Management Plans and to submit these to EPA for approval.

A complete list of the comments from state and local governments has been provided to the Office of Management and Budget and has been placed in the

docket for this rulemaking. In addition, the detailed response to comments from these entities is contained in EPA’s response to comments document on this rulemaking.

As required by section 8(a) of Executive Order 13132, EPA included a certification from its Federalism Official stating that EPA had met the Executive Order’s requirements in a meaningful and timely manner when it sent the draft of this final action to OMB for review pursuant to Executive Order 12866. A copy of this certification is included in the public version of the official record for this final action.

F. Executive Order 13175—Consultation and Coordination With Indian Tribal Governments

Subject to the Executive Order 13175 (65 FR 67249, November 9, 2000) EPA may not issue a regulation that has tribal implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by tribal governments, or EPA consults with tribal officials early in the process of developing the proposed regulation and develops a tribal summary impact statement.

EPA has concluded that this action may have tribal implications. However, it will neither impose substantial direct compliance costs on tribal governments, nor preempt Tribal law. As identified in EPA’s Regulatory Impact Analysis for this action, there are no known tribal owner entities of the coal-fired electric utility plants affected by this action. Although there are three of the 414 coal-fired electric utility plants (in operation as of 2012) which are located on tribal lands, they are not owned by tribal governments. These are: (1) Navajo Generating Station in Coconino County, owned by the Arizona Salt River Project; (2) Bonanza Power Plant in Uintah County, Utah, owned by the Deseret Generation and Transmission Cooperative; and (3) Four Corners Power Plant in San Juan County, New Mexico owned by the Arizona Public Service Company. The Navajo Generating Station and the Four Corners Power Plant are on lands belonging to the Navajo Nation, while the Bonanza Power Plant is located on the Uintah and Ouray Reservation of the Ute Indian Tribe.

EPA consulted with tribal officials early in the process of developing this regulation to permit them to have meaningful and timely input into its development.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

This action is subject to E.O. 13045 (62 FR 19885, April 23, 1997) because it is an economically significant regulatory action as defined by E.O. 12866, and EPA believes that the environmental health or safety risks addressed by this action may have a disproportionate effect on children. Accordingly, we have evaluated the environmental health or safety effects of Coal Combustion Residual constituents of potential concern on children. The results of this evaluation are contained in the *Human and Ecological Risk Assessment of Coal Combustion Wastes* available in the docket for this action.

As ordered by E.O. 13045 Section 1–101(a), EPA identified and assessed environmental health risks and safety risks that may disproportionately affect children in the revised risk assessment. Pursuant to U.S. EPA’s Guidance on Selecting Age Groups for Monitoring and Assessing Childhood Exposures to Environmental Contaminants, children are divided into seven distinct age cohorts: 1 to <2 yr, 2 to <3 yr, 3 to <6 yr, 6 to <11 yr, 11 to <16 yr, 16 to <21 yr, and infants (<1 yr). Using exposure factors for each of these cohorts, EPA calculated cancer and non-cancer risk results in both the screening and probabilistic phases of the assessment. In general, risks to infants tended to be higher than other childhood cohorts, and also higher than risks to adults. However, for drinking water cancer risks, the longer exposures for adults led to the highest risks. Screening risks exceeded EPA’s human health criteria for children exposed to contaminated air, soil, and food resulting from fugitive dust emissions and run-off. Similarly, 90th percentile child cancer and non-cancer risks exceeded the human health criteria for the groundwater to drinking water pathway under the full probabilistic analysis (Table 5–17 in the *Human and Ecological Risk Assessment of Coal Combustion Wastes*). As ordered by E.O. 13045 Section 101(b) EPA has ensured that the standard addresses disproportionate risks to children that result from environmental health risks. The results of the screening assessment finds that risks fell below the criteria when wetting and run-on/runoff controls required by the rule are considered. Under the full probabilistic analysis, composite liners required by the rule for new waste management units showed the ability to reduce the 90th percentile child cancer and non-cancer risks for the groundwater to drinking water pathway to well below

EPA’s criteria. Additionally, the groundwater monitoring and corrective action required by the rule will reduce risks from current waste management units. Thus, EPA believes that this rule will be protective of children’s health.

In general, because the pollution control requirements under the CCR rule will reduce health and environmental exposure risks at all coal-fired electric utility plants, the CCR rule is not expected to create additional or new risks to children.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

Executive Order 13211 (66 FR 28355 (May 22, 2001)) requires EPA to prepare and submit a Statement of Energy Effects to the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), for actions identified as “significant energy actions.” This action, which is a significant regulatory action under Executive Order 12866, is not likely to have a significant adverse effect on the supply, distribution, or use of energy based on the results of the electricity price impact estimates of the Regulatory Impact Analysis (RIA) for this action. We have prepared a Statement of Energy Effects for this action.

According to Executive Order 13211, the statement should address (i) any adverse effects on energy supply, distribution, or use, (including a shortfall in supply, price increases, and increased use of foreign supplies) should the proposal be implemented, and (ii) reasonable alternatives to the action with adverse energy effects and the expected effects of such alternatives on energy supply, distribution, and use.

The potential impact of the final CCR rule on electricity prices is analyzed relative to the “in excess of one percent” threshold which is one of nine alternative numerical indicators established by OMB for defining “significant adverse effect” under Executive Order 13211.²³³ The integrated planning model (IPM) estimates potential increases in wholesale electricity prices for 22 National Energy Modeling System (NEMS) regions. In addition, the analysis focuses on potential changes in electricity prices in 2020, 2025, and 2030. The analysis focuses on these

²³³ OMB defines nine alternative numerical indicators of “significant adverse effect” on energy supply, distribution, or use in Section 4 of its “Memorandum for Heads of Executive Departments and Agencies, and Independent Regulatory Agencies,” M–01–27, July 13, 2001.

relatively early year in the analytic time horizon examined in the RIA to minimize uncertainty in the estimated electricity price impacts. In addition, under the provisions of the rule, the year 2018 is when impoundments begin to undergo closure or wet/dry conversion if they are found to be leaking. Therefore, 2020, 2025, and 2030 represent high-cost year relative to other years in the analytic time horizon, and the analysis presented here will likely yield conservative estimates of the rule’s impact on electricity prices.

Using IPM, the weighted average nationwide potential increase in the wholesale price of electricity is not expected to exceed one percent (between .18% and 0.19% in the years 2020 through 2030). However, for one of the 22 NEMS regions (AZNM), the RIA projects a potential price increase above one percent (between 0.78% and 1.05% in the years 2020 through 2030).

Finally, any retail electricity price increases, if they occur, would have the effect of offsetting a portion of the compliance costs to electric utilities estimated in the RIA, as the utilities would be recovering costs through price increases to customers. Therefore, these impacts are not additive to total rule costs, but would instead offset costs to utilities estimated in the RIA.

Only one region may slightly exceed a one percent electricity price increase, which the RIA estimated without considering the potential reduction in such impact with the compliance deadline flexibility of this action for CCR surface impoundments. Thus all regions are likely to experience less than one percent electricity price impacts of this action. Therefore, this statement does not address reasonable alternatives to the action because EPA does not expect this action to have adverse energy effects as defined by OMB.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (“NTTAA”), Public Law 104–113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use

available and applicable voluntary consensus standards.

This rulemaking involves technical standards. EPA has decided to use the following technical standards in this rule: (1) RCRA Subpart D, Section 257.70 liner design criteria for new CCR landfills and any lateral expansion of a CCR landfill includes voluntary consensus standards developed by ASTM International and EPA test methods such as SW-846, (2) Section 257.71 liner design criteria for existing CCR surface impoundments include voluntary consensus standards developed by ASTM International and EPA test methods such as SW-846, (3) Section 257.72 liner design criteria for new CCR surface impoundments and any lateral expansion of a CCR surface impoundment include voluntary consensus standards developed by ASTM International and EPA test methods such as SW-846, and (4) Section 257.73 structural stability standards for new and existing surface impoundments use the ASTM D 698 and 1557 standards for embankment compaction.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order (E.O.) 12898 (59 FR 7629, Feb. 16, 1994) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA has determined that this final rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it increases the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population.

EPA's risk assessment for this action did not separately evaluate either minority or low income populations. However, to evaluate the demographic characteristics of communities that may be affected by the CCR rule, the RIA compares the demographic characteristics of populations surrounding coal-fired electric utility

plants with broader population data for two geographic areas: (1) One-mile radius from CCR management units (*i.e.*, landfills and impoundments) likely to be affected by groundwater releases from both landfills and impoundments; and (2) watershed catchment areas downstream of surface impoundments that receive surface water run-off and releases from CCR impoundments and are at risk of being contaminated from CCR impoundment discharges (*e.g.*, unintentional overflows, structural failures, and intentional periodic discharges).

For the population as a whole 24.8% belong to a minority group and 11.3% falls below the Federal Poverty Level. For the population living within one mile of plants with surface impoundments 16.1% belong to a minority group and 13.2% live below the Federal Poverty Level. These minority and low-income populations are not disproportionately high compared to the general population. The percentage of minority residents of the entire population living within the catchment areas downstream of surface impoundments is disproportionately high relative to the general population, *i.e.*, 28.7%, versus 24.8% for the national population. Also, the percentage of the population within the catchment areas of surface impoundments that is below the Federal Poverty Level is disproportionately high compared with the general population, *i.e.*, 18.6% versus 11.3% nationally.

Comparing the population percentages of minority and low income residents within one mile of landfills to those percentages in the general population, EPA found that minority and low-income residents make up a smaller percentage of the populations near landfills than they do in the general population, *i.e.*, minorities comprised 16.6% of the population near landfills versus 24.8% nationwide and low-income residents comprised 8.6% of the population near landfills versus 11.3% nationwide. In summary, although populations within the catchment areas of plants with surface impoundments appear to have disproportionately high percentages of minority and low-income residents relative to the nationwide average, populations surrounding plants with landfills do not. Because landfills are less likely than impoundments to experience surface water run-off and releases, catchment areas were not considered for landfills.

Because the CCR rule is risk-reducing, with reductions in risk occurring largely within the surface water catchment zones around, and groundwater

beneath, coal-fired electric utility plants, the rule will not result in new disproportionate risks to minority or low-income populations.

K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A Major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective 180 days after its publication in the **Federal Register**.

List of Subjects

40 CFR Part 257

Environmental protection, Beneficial use, Coal combustion products, Coal combustion residuals, Coal combustion waste, Disposal, Hazardous waste, Landfill, Surface impoundment.

40 CFR Part 261

Environmental protection, Hazardous waste, Recycling, Reporting and recordkeeping requirements.

Dated: December 19, 2014.

Gina McCarthy,
Administrator.

For the reasons set out in the preamble, title 40, chapter I, of the Code of Federal Regulations is amended as follows:

PART 257—CRITERIA FOR CLASSIFICATION OF SOLID WASTE DISPOSAL FACILITIES AND PRACTICES

■ 1. The authority citation for part 257 continues to read as follows:

Authority: 42 U.S.C. 6907(a)(3), 6912(a)(1), 6944(a); 33 U.S.C. 1345(d) and (e).

■ 2. Section 257.1 is amended by:

■ a. Adding a sentence at the end of paragraph (a) introductory text;

■ b. Revising paragraphs (a)(1) and (2); and

■ c. Adding paragraph (c)(12).

The revisions and additions read as follows:

§ 257.1 Scope and purpose.

(a) * * * Unless otherwise provided, the criteria in §§ 257.50 through 257.107 are adopted for determining which CCR landfills and CCR surface impoundments pose a reasonable probability of adverse effects on health or the environment under sections 1008(a)(3) and 4004(a) of the Act.

(1) Facilities failing to satisfy any of the criteria in §§ 257.1 through 257.4 or §§ 257.5 through 257.30 or §§ 257.50 through 257.107 are considered open dumps, which are prohibited under section 4005 of the Act.

(2) Practices failing to satisfy any of the criteria in §§ 257.1 through 257.4 or §§ 257.5 through 257.30 or §§ 257.50 through 257.107 constitute open dumping, which is prohibited under section 4005 of the Act.

* * * * *

(c) * * *

(12) Except as otherwise specifically provided in subpart D of this part, the criteria in subpart A of this part do not apply to CCR landfills, CCR surface impoundments, and lateral expansions of CCR units, as those terms are defined in subpart D of this part. Such units are instead subject to subpart D of this part.

■ 3. Section 257.2 is amended by adding in alphabetical order definitions for “CCR landfill” and “CCR surface impoundment” to read as follows:

§ 257.2 Definitions.

* * * * *

CCR landfill means an area of land or an excavation that receives CCR and which is not a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground or surface coal mine, or a cave. For purposes of this subpart, a CCR landfill also includes sand and gravel pits and quarries that receive CCR, CCR piles, and any practice that does not meet the definition of a beneficial use of CCR.

CCR surface impoundment means a natural topographic depression, man-made excavation, or diked area, which is designed to hold an accumulation of CCR and liquids, and the unit treats, stores, or disposes of CCR.

* * * * *

■ 4. Part 257 is amended by:

■ a. Adding and reserving subpart C; and

■ b. Adding subpart D.

The additions read as follows:

Subpart C—[Reserved]**Subpart D—Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments****General Provisions**

Sec.

- 257.50 Scope and purpose.
- 257.51 Effective date of this subpart.
- 257.52 Applicability of other regulations.
- 257.53 Definitions.

Location Restrictions

- 257.60 Placement above the uppermost aquifer.
- 257.61 Wetlands.
- 257.62 Fault areas.
- 257.63 Seismic impact zones.
- 257.64 Unstable areas.

Design Criteria

- 257.70 Design criteria for new CCR landfills and any lateral expansion of a CCR landfill.
- 257.71 Liner design criteria for existing CCR surface impoundments.
- 257.72 Design criteria for new CCR surface impoundments and any lateral expansion of a CCR surface impoundment.
- 257.73 Structural integrity criteria for existing CCR surface impoundments.
- 257.74 Structural integrity criteria for new CCR surface impoundments and any lateral expansion of a CCR surface impoundment.

Operating Criteria

- 257.80 Air criteria.
- 257.81 Run-on and run-off controls for CCR landfills.
- 257.82 Hydrologic and hydraulic capacity requirements for CCR surface impoundments.
- 257.83 Inspection requirements for CCR surface impoundments.
- 257.84 Inspection requirements for CCR landfills.

Groundwater Monitoring and Corrective Action

- 257.90 Applicability.
- 257.91 Groundwater monitoring systems.
- 257.92 [Reserved]
- 257.93 Groundwater sampling and analysis requirements.
- 257.94 Detection monitoring program.
- 257.95 Assessment monitoring program.
- 257.96 Assessment of corrective measures.
- 257.97 Selection of remedy.
- 257.98 Implementation of the corrective action program.

Closure and Post-Closure Care

- 257.100 Inactive CCR surface impoundments.
- 257.101 Closure or retrofit of CCR units.
- 257.102 Criteria for conducting the closure or retrofit of CCR units.
- 257.103 Alternative closure requirements.
- 257.104 Post-closure care requirements.

Recordkeeping, Notification, and Posting of Information to the Internet

- 257.105 Recordkeeping requirements.
- 257.106 Notification requirements.

257.107 Publicly accessible internet site requirements.

Subpart D—Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments**§ 257.50 Scope and purpose.**

(a) This subpart establishes minimum national criteria for purposes of determining which solid waste disposal facilities and solid waste management practices do not pose a reasonable probability of adverse effects on health or the environment under sections 1008(a)(3) and 4004(a) of the Resource Conservation and Recovery Act.

(b) This subpart applies to owners and operators of new and existing landfills and surface impoundments, including any lateral expansions of such units that dispose or otherwise engage in solid waste management of CCR generated from the combustion of coal at electric utilities and independent power producers. Unless otherwise provided in this subpart, these requirements also apply to disposal units located off-site of the electric utility or independent power producer. This subpart also applies to any practice that does not meet the definition of a beneficial use of CCR.

(c) This subpart also applies to inactive CCR surface impoundments at active electric utilities or independent power producers, regardless of the fuel currently used at the facility to produce electricity.

(d) This subpart does not apply to CCR landfills that have ceased receiving CCR prior to October 19, 2015.

(e) This subpart does not apply to electric utilities or independent power producers that have ceased producing electricity prior to October 19, 2015.

(f) This subpart does not apply to wastes, including fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated at facilities that are not part of an electric utility or independent power producer, such as manufacturing facilities, universities, and hospitals. This subpart also does not apply to fly ash, bottom ash, boiler slag, and flue gas desulfurization materials, generated primarily from the combustion of fuels (including other fossil fuels) other than coal, for the purpose of generating electricity unless the fuel burned consists of more than fifty percent (50%) coal on a total heat input or mass input basis, whichever results in the greater mass feed rate of coal.

(g) This subpart does not apply to practices that meet the definition of a beneficial use of CCR.

(h) This subpart does not apply to CCR placement at active or abandoned underground or surface coal mines.

(i) This subpart does not apply to municipal solid waste landfills that receive CCR.

§ 257.51 Effective date of this subpart.

The requirements of this subpart take effect on October 19, 2015.

§ 257.52 Applicability of other regulations.

(a) Compliance with the requirements of this subpart does not affect the need for the owner or operator of a CCR landfill, CCR surface impoundment, or lateral expansion of a CCR unit to comply with all other applicable federal, state, tribal, or local laws or other requirements.

(b) Any CCR landfill, CCR surface impoundment, or lateral expansion of a CCR unit continues to be subject to the requirements in §§ 257.3–1, 257.3–2, and 257.3–3.

§ 257.53 Definitions.

The following definitions apply to this subpart. Terms not defined in this section have the meaning given by RCRA.

Acre foot means the volume of one acre of surface area to a depth of one foot.

Active facility or active electric utilities or independent power producers means any facility subject to the requirements of this subpart that is in operation on October 14, 2015. An electric utility or independent power producer is in operation if it is generating electricity that is provided to electric power transmission systems or to electric power distribution systems on or after October 14, 2015. An off-site disposal facility is in operation if it is accepting or managing CCR on or after October 14, 2015.

Active life or in operation means the period of operation beginning with the initial placement of CCR in the CCR unit and ending at completion of closure activities in accordance with § 257.102.

Active portion means that part of the CCR unit that has received or is receiving CCR or non-CCR waste and that has not completed closure in accordance with § 257.102.

Aquifer means a geologic formation, group of formations, or portion of a formation capable of yielding usable quantities of groundwater to wells or springs.

Area-capacity curves means graphic curves which readily show the reservoir water surface area, in acres, at different elevations from the bottom of the reservoir to the maximum water surface, and the capacity or volume, in acre-feet,

of the water contained in the reservoir at various elevations.

Areas susceptible to mass movement means those areas of influence (*i.e.*, areas characterized as having an active or substantial possibility of mass movement) where, because of natural or human-induced events, the movement of earthen material at, beneath, or adjacent to the CCR unit results in the downslope transport of soil and rock material by means of gravitational influence. Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, soil fluctuation, block sliding, and rock fall.

Beneficial use of CCR means the CCR meet all of the following conditions:

(1) The CCR must provide a functional benefit;

(2) The CCR must substitute for the use of a virgin material, conserving natural resources that would otherwise need to be obtained through practices, such as extraction;

(3) The use of the CCR must meet relevant product specifications, regulatory standards or design standards when available, and when such standards are not available, the CCR is not used in excess quantities; and

(4) When unencapsulated use of CCR involving placement on the land of 12,400 tons or more in non-roadway applications, the user must demonstrate and keep records, and provide such documentation upon request, that environmental releases to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use.

Closed means placement of CCR in a CCR unit has ceased, and the owner or operator has completed closure of the CCR unit in accordance with § 257.102 and has initiated post-closure care in accordance with § 257.104.

Coal combustion residuals (CCR) means fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from burning coal for the purpose of generating electricity by electric utilities and independent power producers.

CCR fugitive dust means solid airborne particulate matter that contains or is derived from CCR, emitted from any source other than a stack or chimney.

CCR landfill or landfill means an area of land or an excavation that receives CCR and which is not a surface

impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground or surface coal mine, or a cave. For purposes of this subpart, a CCR landfill also includes sand and gravel pits and quarries that receive CCR, CCR piles, and any practice that does not meet the definition of a beneficial use of CCR.

CCR pile or pile means any non-containerized accumulation of solid, non-flowing CCR that is placed on the land. CCR that is beneficially used off-site is not a CCR pile.

CCR surface impoundment or impoundment means a natural topographic depression, man-made excavation, or diked area, which is designed to hold an accumulation of CCR and liquids, and the unit treats, stores, or disposes of CCR.

CCR unit means any CCR landfill, CCR surface impoundment, or lateral expansion of a CCR unit, or a combination of more than one of these units, based on the context of the paragraph(s) in which it is used. This term includes both new and existing units, unless otherwise specified.

Dike means an embankment, berm, or ridge of either natural or man-made materials used to prevent the movement of liquids, sludges, solids, or other materials.

Displacement means the relative movement of any two sides of a fault measured in any direction.

Disposal means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste as defined in section 1004(27) of the Resource Conservation and Recovery Act into or on any land or water so that such solid waste, or constituent thereof, may enter the environment or be emitted into the air or discharged into any waters, including groundwaters. For purposes of this subpart, disposal does not include the storage or the beneficial use of CCR.

Downstream toe means the junction of the downstream slope or face of the CCR surface impoundment with the ground surface.

Encapsulated beneficial use means a beneficial use of CCR that binds the CCR into a solid matrix that minimizes its mobilization into the surrounding environment.

Existing CCR landfill means a CCR landfill that receives CCR both before and after October 14, 2015, or for which construction commenced prior to October 14, 2015 and receives CCR on or after October 14, 2015. A CCR landfill has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical

construction and a continuous on-site, physical construction program had begun prior to October 14, 2015.

Existing CCR surface impoundment means a CCR surface impoundment that receives CCR both before and after October 14, 2015, or for which construction commenced prior to October 14, 2015 and receives CCR on or after October 14, 2015. A CCR surface impoundment has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction and a continuous on-site, physical construction program had begun prior to October 14, 2015.

Facility means all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, disposing, or otherwise conducting solid waste management of CCR. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of them).

Factor of safety (Safety factor) means the ratio of the forces tending to resist the failure of a structure to the forces tending to cause such failure as determined by accepted engineering practice.

Fault means a fracture or a zone of fractures in any material along which strata on one side have been displaced with respect to that on the other side.

Flood hydrograph means a graph showing, for a given point on a stream, the discharge, height, or other characteristic of a flood as a function of time.

Freeboard means the vertical distance between the lowest point on the crest of the impoundment dike and the surface of the waste contained therein.

Free liquids means liquids that readily separate from the solid portion of a waste under ambient temperature and pressure.

Groundwater means water below the land surface in a zone of saturation.

Hazard potential classification means the possible adverse incremental consequences that result from the release of water or stored contents due to failure of the diked CCR surface impoundment or mis-operation of the diked CCR surface impoundment or its appurtenances. The hazardous potential classifications include high hazard potential CCR surface impoundment, significant hazard potential CCR surface impoundment, and low hazard potential CCR surface impoundment, which terms mean:

(1) *High hazard potential CCR surface impoundment* means a diked surface impoundment where failure or mis-

operation will probably cause loss of human life.

(2) *Low hazard potential CCR surface impoundment* means a diked surface impoundment where failure or mis-operation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the surface impoundment owner's property.

(3) *Significant hazard potential CCR surface impoundment* means a diked surface impoundment where failure or mis-operation results in no probable loss of human life, but can cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns.

Height means the vertical measurement from the downstream toe of the CCR surface impoundment at its lowest point to the lowest elevation of the crest of the CCR surface impoundment.

Holocene means the most recent epoch of the Quaternary period, extending from the end of the Pleistocene Epoch, at 11,700 years before present, to present.

Hydraulic conductivity means the rate at which water can move through a permeable medium (i.e., the coefficient of permeability).

Inactive CCR surface impoundment means a CCR surface impoundment that no longer receives CCR on or after October 14, 2015 and still contains both CCR and liquids on or after October 14, 2015.

Incised CCR surface impoundment means a CCR surface impoundment which is constructed by excavating entirely below the natural ground surface, holds an accumulation of CCR entirely below the adjacent natural ground surface, and does not consist of any constructed diked portion.

Indian country or Indian lands means:

(1) All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and including rights-of-way running throughout the reservation;

(2) All dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of the State; and

(3) All Indian allotments, the Indian titles to which have not been extinguished, including rights of way running through the same.

Indian Tribe or Tribe means any Indian tribe, band, nation, or community recognized by the Secretary of the Interior and exercising substantial

governmental duties and powers on Indian lands.

Inflow design flood means the flood hydrograph that is used in the design or modification of the CCR surface impoundments and its appurtenant works.

In operation means the same as *active life*.

Karst terrain means an area where karst topography, with its characteristic erosional surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terranes include, but are not limited to, dolines, collapse shafts (sinkholes), sinking streams, caves, seeps, large springs, and blind valleys.

Lateral expansion means a horizontal expansion of the waste boundaries of an existing CCR landfill or existing CCR surface impoundment made after October 14, 2015.

Liquefaction factor of safety means the factor of safety (safety factor) determined using analysis under liquefaction conditions.

Lithified earth material means all rock, including all naturally occurring and naturally formed aggregates or masses of minerals or small particles of older rock that formed by crystallization of magma or by induration of loose sediments. This term does not include man-made materials, such as fill, concrete, and asphalt, or unconsolidated earth materials, soil, or regolith lying at or near the earth surface.

Maximum horizontal acceleration in lithified earth material means the maximum expected horizontal acceleration at the ground surface as depicted on a seismic hazard map, with a 98% or greater probability that the acceleration will not be exceeded in 50 years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment.

New CCR landfill means a CCR landfill or lateral expansion of a CCR landfill that first receives CCR or commences construction after October 14, 2015. A new CCR landfill has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction and a continuous on-site, physical construction program had begun after October 14, 2015. Overfills are also considered new CCR landfills.

New CCR surface impoundment means a CCR surface impoundment or lateral expansion of an existing or new CCR surface impoundment that first receives CCR or commences construction after October 14, 2015. A

new CCR surface impoundment has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction and a continuous on-site, physical construction program had begun after October 14, 2015.

Operator means the person(s) responsible for the overall operation of a CCR unit.

Overflow means a new CCR landfill constructed over a closed CCR surface impoundment.

Owner means the person(s) who owns a CCR unit or part of a CCR unit.

Poor foundation conditions mean those areas where features exist which indicate that a natural or human-induced event may result in inadequate foundation support for the structural components of an existing or new CCR unit. For example, failure to maintain static and seismic factors of safety as required in §§ 257.73(e) and 257.74(e) would cause a poor foundation condition.

Probable maximum flood means the flood that may be expected from the most severe combination of critical meteorologic and hydrologic conditions that are reasonably possible in the drainage basin.

Qualified person means a person or persons trained to recognize specific appearances of structural weakness and other conditions which are disrupting or have the potential to disrupt the operation or safety of the CCR unit by visual observation and, if applicable, to monitor instrumentation.

Qualified professional engineer means an individual who is licensed by a state as a Professional Engineer to practice one or more disciplines of engineering and who is qualified by education, technical knowledge and experience to make the specific technical certifications required under this subpart. Professional engineers making these certifications must be currently licensed in the state where the CCR unit(s) is located.

Recognized and generally accepted good engineering practices means engineering maintenance or operation activities based on established codes, widely accepted standards, published technical reports, or a practice widely recommended throughout the industry. Such practices generally detail approved ways to perform specific engineering, inspection, or mechanical integrity activities.

Retrofit means to remove all CCR and contaminated soils and sediments from the CCR surface impoundment, and to ensure the unit complies with the requirements in § 257.72

Representative sample means a sample of a universe or whole (e.g., waste pile, lagoon, and groundwater) which can be expected to exhibit the average properties of the universe or whole. See EPA publication SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Chapter 9 (available at <http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm>) for a discussion and examples of representative samples.

Run-off means any rainwater, leachate, or other liquid that drains over land from any part of a CCR landfill or lateral expansion of a CCR landfill.

Run-on means any rainwater, leachate, or other liquid that drains over land onto any part of a CCR landfill or lateral expansion of a CCR landfill.

Sand and gravel pit or quarry means an excavation for the extraction of aggregate, minerals or metals. The term sand and gravel pit and/or quarry does not include subsurface or surface coal mines.

Seismic factor of safety means the factor of safety (safety factor) determined using analysis under earthquake conditions using the peak ground acceleration for a seismic event with a 2% probability of exceedance in 50 years, equivalent to a return period of approximately 2,500 years, based on the U.S. Geological Survey (USGS) seismic hazard maps for seismic events with this return period for the region where the CCR surface impoundment is located.

Seismic impact zone means an area having a 2% or greater probability that the maximum expected horizontal acceleration, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10 g in 50 years.

Slope protection means engineered or non-engineered measures installed on the upstream or downstream slope of the CCR surface impoundment to protect the slope against wave action or erosion, including but not limited to rock riprap, wooden pile, or concrete revetments, vegetated wave berms, concrete facing, gabions, geotextiles, or fascines.

Solid waste management or management means the systematic administration of the activities which provide for the collection, source separation, storage, transportation, processing, treatment, or disposal of solid waste.

State means any of the fifty States in addition to the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

State Director means the chief administrative officer of the lead state agency responsible for implementing the state program regulating disposal in CCR landfills, CCR surface impoundments, and all lateral expansions of a CCR unit.

Static factor of safety means the factor of safety (safety factor) determined using analysis under the long-term, maximum storage pool loading condition, the maximum surcharge pool loading condition, and under the end-of-construction loading condition.

Structural components mean liners, leachate collection and removal systems, final covers, run-on and run-off systems, inflow design flood control systems, and any other component used in the construction and operation of the CCR unit that is necessary to ensure the integrity of the unit and that the contents of the unit are not released into the environment.

Unstable area means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity, including structural components of some or all of the CCR unit that are responsible for preventing releases from such unit. Unstable areas can include poor foundation conditions, areas susceptible to mass movements, and karst terrains.

Uppermost aquifer means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary. Upper limit is measured at a point nearest to the natural ground surface to which the aquifer rises during the wet season.

Waste boundary means a vertical surface located at the hydraulically downgradient limit of the CCR unit. The vertical surface extends down into the uppermost aquifer.

Location Restrictions

§ 257.60 Placement above the uppermost aquifer.

(a) New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must be constructed with a base that is located no less than 1.52 meters (five feet) above the upper limit of the uppermost aquifer, or must demonstrate that there will not be an intermittent, recurring, or sustained hydraulic connection between any portion of the base of the CCR unit and the uppermost aquifer due to normal fluctuations in groundwater elevations (including the seasonal high water table). The owner or operator must demonstrate by the dates specified in paragraph (c) of this section

that the CCR unit meets the minimum requirements for placement above the uppermost aquifer.

(b) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the demonstration meets the requirements of paragraph (a) of this section.

(c) The owner or operator of the CCR unit must complete the demonstration required by paragraph (a) of this section by the date specified in either paragraph (c)(1) or (2) of this section.

(1) For an existing CCR surface impoundment, the owner or operator must complete the demonstration no later than October 17, 2018.

(2) For a new CCR landfill, new CCR surface impoundment, or any lateral expansion of a CCR unit, the owner or operator must complete the demonstration no later than the date of initial receipt of CCR in the CCR unit.

(3) The owner or operator has completed the demonstration required by paragraph (a) of this section when the demonstration is placed in the facility's operating record as required by § 257.105(e).

(4) An owner or operator of an existing CCR surface impoundment who fails to demonstrate compliance with the requirements of paragraph (a) of this section by the date specified in paragraph (c)(1) of this section is subject to the requirements of § 257.101(b)(1).

(5) An owner or operator of a new CCR landfill, new CCR surface impoundment, or any lateral expansion of a CCR unit who fails to make the demonstration showing compliance with the requirements of paragraph (a) of this section is prohibited from placing CCR in the CCR unit.

(d) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(e), the notification requirements specified in § 257.106(e), and the internet requirements specified in § 257.107(e).

§ 257.61 Wetlands.

(a) New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must not be located in wetlands, as defined in § 232.2 of this chapter, unless the owner or operator demonstrates by the dates specified in paragraph (c) of this section that the CCR unit meets the requirements of paragraphs (a)(1) through (5) of this section.

(1) Where applicable under section 404 of the Clean Water Act or applicable state wetlands laws, a clear and objective rebuttal of the presumption that an alternative to the CCR unit is

reasonably available that does not involve wetlands.

(2) The construction and operation of the CCR unit will not cause or contribute to any of the following:

(i) A violation of any applicable state or federal water quality standard;

(ii) A violation of any applicable toxic effluent standard or prohibition under section 307 of the Clean Water Act;

(iii) Jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of a critical habitat, protected under the Endangered Species Act of 1973; and

(iv) A violation of any requirement under the Marine Protection, Research, and Sanctuaries Act of 1972 for the protection of a marine sanctuary.

(3) The CCR unit will not cause or contribute to significant degradation of wetlands by addressing all of the following factors:

(i) Erosion, stability, and migration potential of native wetland soils, muds and deposits used to support the CCR unit;

(ii) Erosion, stability, and migration potential of dredged and fill materials used to support the CCR unit;

(iii) The volume and chemical nature of the CCR;

(iv) Impacts on fish, wildlife, and other aquatic resources and their habitat from release of CCR;

(v) The potential effects of catastrophic release of CCR to the wetland and the resulting impacts on the environment; and

(vi) Any additional factors, as necessary, to demonstrate that ecological resources in the wetland are sufficiently protected.

(4) To the extent required under section 404 of the Clean Water Act or applicable state wetlands laws, steps have been taken to attempt to achieve no net loss of wetlands (as defined by acreage and function) by first avoiding impacts to wetlands to the maximum extent reasonable as required by paragraphs (a)(1) through (3) of this section, then minimizing unavoidable impacts to the maximum extent reasonable, and finally offsetting remaining unavoidable wetland impacts through all appropriate and reasonable compensatory mitigation actions (e.g., restoration of existing degraded wetlands or creation of man-made wetlands); and

(5) Sufficient information is available to make a reasoned determination with respect to the demonstrations in paragraphs (a)(1) through (4) of this section.

(b) The owner or operator of the CCR unit must obtain a certification from a

qualified professional engineer stating that the demonstration meets the requirements of paragraph (a) of this section.

(c) The owner or operator of the CCR unit must complete the demonstrations required by paragraph (a) of this section by the date specified in either paragraph (c)(1) or (2) of this section.

(1) For an existing CCR surface impoundment, the owner or operator must complete the demonstration no later than October 17, 2018.

(2) For a new CCR landfill, new CCR surface impoundment, or any lateral expansion of a CCR unit, the owner or operator must complete the demonstration no later than the date of initial receipt of CCR in the CCR unit.

(3) The owner or operator has completed the demonstration required by paragraph (a) of this section when the demonstration is placed in the facility's operating record as required by § 257.105(e).

(4) An owner or operator of an existing CCR surface impoundment who fails to demonstrate compliance with the requirements of paragraph (a) of this section by the date specified in paragraph (c)(1) of this section is subject to the requirements of § 257.101(b)(1).

(5) An owner or operator of a new CCR landfill, new CCR surface impoundment, or any lateral expansion of a CCR unit who fails to make the demonstrations showing compliance with the requirements of paragraph (a) of this section is prohibited from placing CCR in the CCR unit.

(d) The owner or operator must comply with the recordkeeping requirements specified in § 257.105(e), the notification requirements specified in § 257.106(e), and the internet requirements specified in § 257.107(e).

§ 257.62 Fault areas.

(a) New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must not be located within 60 meters (200 feet) of the outermost damage zone of a fault that has had displacement in Holocene time unless the owner or operator demonstrates by the dates specified in paragraph (c) of this section that an alternative setback distance of less than 60 meters (200 feet) will prevent damage to the structural integrity of the CCR unit.

(b) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the demonstration meets the requirements of paragraph (a) of this section.

(c) The owner or operator of the CCR unit must complete the demonstration

required by paragraph (a) of this section by the date specified in either paragraph (c)(1) or (2) of this section.

(1) For an existing CCR surface impoundment, the owner or operator must complete the demonstration no later than October 17, 2018.

(2) For a new CCR landfill, new CCR surface impoundment, or any lateral expansion of a CCR unit, the owner or operator must complete the demonstration no later than the date of initial receipt of CCR in the CCR unit.

(3) The owner or operator has completed the demonstration required by paragraph (a) of this section when the demonstration is placed in the facility's operating record as required by § 257.105(e).

(4) An owner or operator of an existing CCR surface impoundment who fails to demonstrate compliance with the requirements of paragraph (a) of this section by the date specified in paragraph (c)(1) of this section is subject to the requirements of § 257.101(b)(1).

(5) An owner or operator of a new CCR landfill, new CCR surface impoundment, or any lateral expansion of a CCR unit who fails to make the demonstration showing compliance with the requirements of paragraph (a) of this section is prohibited from placing CCR in the CCR unit.

(d) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(e), the notification requirements specified in § 257.106(e), and the Internet requirements specified in § 257.107(e).

§ 257.63 Seismic impact zones.

(a) New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must not be located in seismic impact zones unless the owner or operator demonstrates by the dates specified in paragraph (c) of this section that all structural components including liners, leachate collection and removal systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site.

(b) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the demonstration meets the requirements of paragraph (a) of this section.

(c) The owner or operator of the CCR unit must complete the demonstration required by paragraph (a) of this section by the date specified in either paragraph (c)(1) or (2) of this section.

(1) For an existing CCR surface impoundment, the owner or operator

must complete the demonstration no later than October 17, 2018.

(2) For a new CCR landfill, new CCR surface impoundment, or any lateral expansion of a CCR unit, the owner or operator must complete the demonstration no later than the date of initial receipt of CCR in the CCR unit.

(3) The owner or operator has completed the demonstration required by paragraph (a) of this section when the demonstration is placed in the facility's operating record as required by § 257.105(e).

(4) An owner or operator of an existing CCR surface impoundment who fails to demonstrate compliance with the requirements of paragraph (a) of this section by the date specified in paragraph (c)(1) of this section is subject to the requirements of § 257.101(b)(1).

(5) An owner or operator of a new CCR landfill, new CCR surface impoundment, or any lateral expansion of a CCR unit who fails to make the demonstration showing compliance with the requirements of paragraph (a) of this section is prohibited from placing CCR in the CCR unit.

(d) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(e), the notification requirements specified in § 257.106(e), and the Internet requirements specified in § 257.107(e).

§ 257.64 Unstable areas.

(a) An existing or new CCR landfill, existing or new CCR surface impoundment, or any lateral expansion of a CCR unit must not be located in an unstable area unless the owner or operator demonstrates by the dates specified in paragraph (d) of this section that recognized and generally accepted good engineering practices have been incorporated into the design of the CCR unit to ensure that the integrity of the structural components of the CCR unit will not be disrupted.

(b) The owner or operator must consider all of the following factors, at a minimum, when determining whether an area is unstable:

(1) On-site or local soil conditions that may result in significant differential settling;

(2) On-site or local geologic or geomorphologic features; and

(3) On-site or local human-made features or events (both surface and subsurface).

(c) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the demonstration meets the requirements of paragraph (a) of this section.

(d) The owner or operator of the CCR unit must complete the demonstration required by paragraph (a) of this section by the date specified in either paragraph (d)(1) or (2) of this section.

(1) For an existing CCR landfill or existing CCR surface impoundment, the owner or operator must complete the demonstration no later than October 17, 2018.

(2) For a new CCR landfill, new CCR surface impoundment, or any lateral expansion of a CCR unit, the owner or operator must complete the demonstration no later than the date of initial receipt of CCR in the CCR unit.

(3) The owner or operator has completed the demonstration required by paragraph (a) of this section when the demonstration is placed in the facility's operating record as required by § 257.105(e).

(4) An owner or operator of an existing CCR surface impoundment or existing CCR landfill who fails to demonstrate compliance with the requirements of paragraph (a) of this section by the date specified in paragraph (d)(1) of this section is subject to the requirements of § 257.101(b)(1) or (d)(1), respectively.

(5) An owner or operator of a new CCR landfill, new CCR surface impoundment, or any lateral expansion of a CCR unit who fails to make the demonstration showing compliance with the requirements of paragraph (a) of this section is prohibited from placing CCR in the CCR unit.

(e) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(e), the notification requirements specified in § 257.106(e), and the Internet requirements specified in § 257.107(e).

Design Criteria

§ 257.70 Design criteria for new CCR landfills and any lateral expansion of a CCR landfill.

(a)(1) New CCR landfills and any lateral expansion of a CCR landfill must be designed, constructed, operated, and maintained with either a composite liner that meets the requirements of paragraph (b) of this section or an alternative composite liner that meets the requirements in paragraph (c) of this section, and a leachate collection and removal system that meets the requirements of paragraph (d) of this section.

(2) Prior to construction of an overflow the underlying surface impoundment must meet the requirements of § 257.102(d).

(b) A *composite liner* must consist of two components; the upper component

consisting of, at a minimum, a 30-mil geomembrane liner (GM), and the lower component consisting of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} centimeters per second (cm/sec). GM components consisting of high density polyethylene (HDPE) must be at least 60-mil thick. The GM or upper liner component must be installed in direct and uniform contact with the compacted soil or lower liner component. The composite liner must be:

(1) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the CCR or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(2) Constructed of materials that provide appropriate shear resistance of the upper and lower component interface to prevent sliding of the upper component including on slopes;

(3) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(4) Installed to cover all surrounding earth likely to be in contact with the CCR or leachate.

(c) If the owner or operator elects to install an alternative composite liner, all of the following requirements must be met:

(1) An *alternative composite liner* must consist of two components; the upper component consisting of, at a minimum, a 30-mil GM, and a lower component, that is not a geomembrane, with a liquid flow rate no greater than the liquid flow rate of two feet of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec. GM components consisting of high density polyethylene (HDPE) must be at least 60-mil thick. If the lower component of the alternative liner is compacted soil, the GM must be installed in direct and uniform contact with the compacted soil.

(2) The owner or operator must obtain certification from a qualified professional engineer that the liquid flow rate through the lower component of the alternative composite liner is no greater than the liquid flow rate through two feet of compacted soil with a hydraulic conductivity of 1×10^{-7} cm/sec. The hydraulic conductivity for the two feet of compacted soil used in the comparison shall be no greater than $1 \times$

10^{-7} cm/sec. The hydraulic conductivity of any alternative to the two feet of compacted soil must be determined using recognized and generally accepted methods. The liquid flow rate comparison must be made using Equation 1 of this section, which is derived from Darcy's Law for gravity flow through porous media.

$$\text{(Eq. 1)} \quad \frac{Q}{A} = q = k \left(\frac{h}{t} + 1 \right)$$

Where,

Q = flow rate (cubic centimeters/second);

A = surface area of the liner (squared centimeters);

q = flow rate per unit area (cubic centimeters/second/squared centimeter);

k = hydraulic conductivity of the liner (centimeters/second);

h = hydraulic head above the liner (centimeters); and

t = thickness of the liner (centimeters).

(3) The alternative composite liner must meet the requirements specified in paragraphs (b)(1) through (4) of this section.

(d) The *leachate collection and removal system* must be designed, constructed, operated, and maintained to collect and remove leachate from the landfill during the active life and post-closure care period. The leachate collection and removal system must be:

(1) Designed and operated to maintain less than a 30-centimeter depth of leachate over the composite liner or alternative composite liner;

(2) Constructed of materials that are chemically resistant to the CCR and any non-CCR waste managed in the CCR unit and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying waste, waste cover materials, and equipment used at the CCR unit; and

(3) Designed and operated to minimize clogging during the active life and post-closure care period.

(e) Prior to construction of the CCR landfill or any lateral expansion of a CCR landfill, the owner or operator must obtain a certification from a qualified professional engineer that the design of the composite liner (or, if applicable, alternative composite liner) and the leachate collection and removal system meets the requirements of this section.

(f) Upon completion of construction of the CCR landfill or any lateral expansion of a CCR landfill, the owner or operator must obtain a certification from a qualified professional engineer that the composite liner (or, if applicable, alternative composite liner) and the leachate collection and removal

system has been constructed in accordance with the requirements of this section.

(g) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(f), the notification requirements specified in § 257.106(f), and the Internet requirements specified in § 257.107(f).

§ 257.71 Liner design criteria for existing CCR surface impoundments.

(a)(1) No later than October 17, 2016, the owner or operator of an existing CCR surface impoundment must document whether or not such unit was constructed with any one of the following:

(i) A liner consisting of a minimum of two feet of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec;

(ii) A composite liner that meets the requirements of § 257.70(b); or

(iii) An alternative composite liner that meets the requirements of § 257.70(c).

(2) The hydraulic conductivity of the compacted soil must be determined using recognized and generally accepted methods.

(3) An existing CCR surface impoundment is considered to be an existing unlined CCR surface impoundment if either:

(i) The owner or operator of the CCR unit determines that the CCR unit is not constructed with a liner that meets the requirements of paragraphs (a)(1)(i), (ii), or (iii) of this section; or

(ii) The owner or operator of the CCR unit fails to document whether the CCR unit was constructed with a liner that meets the requirements of paragraphs (a)(1)(i), (ii), or (iii) of this section.

(4) All existing unlined CCR surface impoundments are subject to the requirements of § 257.101(a).

(b) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer attesting that the documentation as to whether a CCR unit meets the requirements of paragraph (a) of this section is accurate.

(c) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(f), the notification requirements specified in § 257.106(f), and the Internet requirements specified in § 257.107(f).

§ 257.72 Liner design criteria for new CCR surface impoundments and any lateral expansion of a CCR surface impoundment.

(a) New CCR surface impoundments and lateral expansions of existing and new CCR surface impoundments must

be designed, constructed, operated, and maintained with either a composite liner or an alternative composite liner that meets the requirements of § 257.70(b) or (c).

(b) Any liner specified in this section must be installed to cover all surrounding earth likely to be in contact with CCR. Dikes shall not be constructed on top of the composite liner.

(c) Prior to construction of the CCR surface impoundment or any lateral expansion of a CCR surface impoundment, the owner or operator must obtain certification from a qualified professional engineer that the design of the composite liner or, if applicable, the design of an alternative composite liner complies with the requirements of this section.

(d) Upon completion, the owner or operator must obtain certification from a qualified professional engineer that the composite liner or if applicable, the alternative composite liner has been constructed in accordance with the requirements of this section.

(e) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(f), the notification requirements specified in § 257.106(f), and the Internet requirements specified in § 257.107(f).

§ 257.73 Structural integrity criteria for existing CCR surface impoundments.

(a) The requirements of paragraphs (a)(1) through (4) of this section apply to all existing CCR surface impoundments, except for those existing CCR surface impoundments that are incised CCR units. If an incised CCR surface impoundment is subsequently modified (e.g., a dike is constructed) such that the CCR unit no longer meets the definition of an incised CCR unit, the CCR unit is subject to the requirements of paragraphs (a)(1) through (4) of this section.

(1) No later than, December 17, 2015, the owner or operator of the CCR unit must place on or immediately adjacent to the CCR unit a permanent identification marker, at least six feet high showing the identification number of the CCR unit, if one has been assigned by the state, the name associated with the CCR unit and the name of the owner or operator of the CCR unit.

(2) *Periodic hazard potential classification assessments.* (i) The owner or operator of the CCR unit must conduct initial and periodic hazard potential classification assessments of the CCR unit according to the timeframes specified in paragraph (f) of

this section. The owner or operator must document the hazard potential classification of each CCR unit as either a high hazard potential CCR surface impoundment, a significant hazard potential CCR surface impoundment, or a low hazard potential CCR surface impoundment. The owner or operator must also document the basis for each hazard potential classification.

(ii) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the initial hazard potential classification and each subsequent periodic classification specified in paragraph (a)(2)(i) of this section was conducted in accordance with the requirements of this section.

(3) *Emergency Action Plan (EAP)*—(i) *Development of the plan.* No later than April 17, 2017, the owner or operator of a CCR unit determined to be either a high hazard potential CCR surface impoundment or a significant hazard potential CCR surface impoundment under paragraph (a)(2) of this section must prepare and maintain a written EAP. At a minimum, the EAP must:

(A) Define the events or circumstances involving the CCR unit that represent a safety emergency, along with a description of the procedures that will be followed to detect a safety emergency in a timely manner;

(B) Define responsible persons, their respective responsibilities, and notification procedures in the event of a safety emergency involving the CCR unit;

(C) Provide contact information of emergency responders;

(D) Include a map which delineates the downstream area which would be affected in the event of a CCR unit failure and a physical description of the CCR unit; and

(E) Include provisions for an annual face-to-face meeting or exercise between representatives of the owner or operator of the CCR unit and the local emergency responders.

(ii) *Amendment of the plan.* (A) The owner or operator of a CCR unit subject to the requirements of paragraph (a)(3)(i) of this section may amend the written EAP at any time provided the revised plan is placed in the facility's operating record as required by § 257.105(f)(6). The owner or operator must amend the written EAP whenever there is a change in conditions that would substantially affect the EAP in effect.

(B) The written EAP must be evaluated, at a minimum, every five years to ensure the information required in paragraph (a)(3)(i) of this section is accurate. As necessary, the EAP must be updated and a revised EAP placed in

the facility's operating record as required by § 257.105(f)(6).

(iii) *Changes in hazard potential classification.* (A) If the owner or operator of a CCR unit determines during a periodic hazard potential assessment that the CCR unit is no longer classified as either a high hazard potential CCR surface impoundment or a significant hazard potential CCR surface impoundment, then the owner or operator of the CCR unit is no longer subject to the requirement to prepare and maintain a written EAP beginning on the date the periodic hazard potential assessment documentation is placed in the facility's operating record as required by § 257.105(f)(5).

(B) If the owner or operator of a CCR unit classified as a low hazard potential CCR surface impoundment subsequently determines that the CCR unit is properly re-classified as either a high hazard potential CCR surface impoundment or a significant hazard potential CCR surface impoundment, then the owner or operator of the CCR unit must prepare a written EAP for the CCR unit as required by paragraph (a)(3)(i) of this section within six months of completing such periodic hazard potential assessment.

(iv) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the written EAP, and any subsequent amendment of the EAP, meets the requirements of paragraph (a)(3) of this section.

(v) *Activation of the EAP.* The EAP must be implemented once events or circumstances involving the CCR unit that represent a safety emergency are detected, including conditions identified during periodic structural stability assessments, annual inspections, and inspections by a qualified person.

(4) The CCR unit and surrounding areas must be designed, constructed, operated, and maintained with vegetated slopes of dikes not to exceed a height of 6 inches above the slope of the dike, except for slopes which are protected with an alternate form(s) of slope protection.

(b) The requirements of paragraphs (c) through (e) of this section apply to an owner or operator of an existing CCR surface impoundment that either:

(1) Has a height of five feet or more and a storage volume of 20 acre-feet or more; or

(2) Has a height of 20 feet or more.

(c)(1) No later than October 17, 2016, the owner or operator of the CCR unit must compile a history of construction, which shall contain, to the extent feasible, the information specified in

paragraphs (c)(1)(i) through (xi) of this section.

(i) The name and address of the person(s) owning or operating the CCR unit; the name associated with the CCR unit; and the identification number of the CCR unit if one has been assigned by the state.

(ii) The location of the CCR unit identified on the most recent U.S. Geological Survey (USGS) 7½ minute or 15 minute topographic quadrangle map, or a topographic map of equivalent scale if a USGS map is not available.

(iii) A statement of the purpose for which the CCR unit is being used.

(iv) The name and size in acres of the watershed within which the CCR unit is located.

(v) A description of the physical and engineering properties of the foundation and abutment materials on which the CCR unit is constructed.

(vi) A statement of the type, size, range, and physical and engineering properties of the materials used in constructing each zone or stage of the CCR unit; the method of site preparation and construction of each zone of the CCR unit; and the approximate dates of construction of each successive stage of construction of the CCR unit.

(vii) At a scale that details engineering structures and appurtenances relevant to the design, construction, operation, and maintenance of the CCR unit, detailed dimensional drawings of the CCR unit, including a plan view and cross sections of the length and width of the CCR unit, showing all zones, foundation improvements, drainage provisions, spillways, diversion ditches, outlets, instrument locations, and slope protection, in addition to the normal operating pool surface elevation and the maximum pool surface elevation following peak discharge from the inflow design flood, the expected maximum depth of CCR within the CCR surface impoundment, and any identifiable natural or manmade features that could adversely affect operation of the CCR unit due to malfunction or mis-operation.

(viii) A description of the type, purpose, and location of existing instrumentation.

(ix) Area-capacity curves for the CCR unit.

(x) A description of each spillway and diversion design features and capacities and calculations used in their determination.

(xi) The construction specifications and provisions for surveillance, maintenance, and repair of the CCR unit.

(xii) Any record or knowledge of structural instability of the CCR unit.

(2) *Changes to the history of construction.* If there is a significant change to any information compiled under paragraph (c)(1) of this section, the owner or operator of the CCR unit must update the relevant information and place it in the facility's operating record as required by § 257.105(f)(9).

(d) *Periodic structural stability assessments.* (1) The owner or operator of the CCR unit must conduct initial and periodic structural stability assessments and document whether the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and CCR wastewater which can be impounded therein. The assessment must, at a minimum, document whether the CCR unit has been designed, constructed, operated, and maintained with:

(i) Stable foundations and abutments;

(ii) Adequate slope protection to protect against surface erosion, wave action, and adverse effects of sudden drawdown;

(iii) Dikes mechanically compacted to a density sufficient to withstand the range of loading conditions in the CCR unit;

(iv) Vegetated slopes of dikes and surrounding areas not to exceed a height of six inches above the slope of the dike, except for slopes which have an alternate form or forms of slope protection;

(v) A single spillway or a combination of spillways configured as specified in paragraph (d)(1)(v)(A) of this section. The combined capacity of all spillways must be designed, constructed, operated, and maintained to adequately manage flow during and following the peak discharge from the event specified in paragraph (d)(1)(v)(B) of this section.

(A) All spillways must be either:

(1) Of non-erodible construction and designed to carry sustained flows; or

(2) Earth- or grass-lined and designed to carry short-term, infrequent flows at non-erosive velocities where sustained flows are not expected.

(B) The combined capacity of all spillways must adequately manage flow during and following the peak discharge from a:

(1) Probable maximum flood (PMF) for a high hazard potential CCR surface impoundment; or

(2) 1000-year flood for a significant hazard potential CCR surface impoundment; or

(3) 100-year flood for a low hazard potential CCR surface impoundment.

(vi) Hydraulic structures underlying the base of the CCR unit or passing

through the dike of the CCR unit that maintain structural integrity and are free of significant deterioration, deformation, distortion, bedding deficiencies, sedimentation, and debris which may negatively affect the operation of the hydraulic structure; and

(vii) For CCR units with downstream slopes which can be inundated by the pool of an adjacent water body, such as a river, stream or lake, downstream slopes that maintain structural stability during low pool of the adjacent water body or sudden drawdown of the adjacent water body.

(2) The periodic assessment described in paragraph (d)(1) of this section must identify any structural stability deficiencies associated with the CCR unit in addition to recommending corrective measures. If a deficiency or a release is identified during the periodic assessment, the owner or operator unit must remedy the deficiency or release as soon as feasible and prepare documentation detailing the corrective measures taken.

(3) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the initial assessment and each subsequent periodic assessment was conducted in accordance with the requirements of this section.

(e) *Periodic safety factor assessments.*

(1) The owner or operator must conduct an initial and periodic safety factor assessments for each CCR unit and document whether the calculated factors of safety for each CCR unit achieve the minimum safety factors specified in paragraphs (e)(1)(i) through (iv) of this section for the critical cross section of the embankment. The critical cross section is the cross section anticipated to be the most susceptible of all cross sections to structural failure based on appropriate engineering considerations, including loading conditions. The safety factor assessments must be supported by appropriate engineering calculations.

(i) The calculated static factor of safety under the long-term, maximum storage pool loading condition must equal or exceed 1.50.

(ii) The calculated static factor of safety under the maximum surcharge pool loading condition must equal or exceed 1.40.

(iii) The calculated seismic factor of safety must equal or exceed 1.00.

(iv) For dikes constructed of soils that have susceptibility to liquefaction, the calculated liquefaction factor of safety must equal or exceed 1.20.

(2) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating

that the initial assessment and each subsequent periodic assessment specified in paragraph (e)(1) of this section meets the requirements of this section.

(f) *Timeframes for periodic assessments*—(1) *Initial assessments.* Except as provided by paragraph (f)(2) of this section, the owner or operator of the CCR unit must complete the initial assessments required by paragraphs (a)(2), (d), and (e) of this section no later than October 17, 2016. The owner or operator has completed an initial assessment when the owner or operator has placed the assessment required by paragraphs (a)(2), (d), and (e) of this section in the facility's operating record as required by § 257.105(f)(5), (10), and (12).

(2) *Use of a previously completed assessment(s) in lieu of the initial assessment(s).* The owner or operator of the CCR unit may elect to use a previously completed assessment to serve as the initial assessment required by paragraphs (a)(2), (d), and (e) of this section provided that the previously completed assessment(s):

(i) Was completed no earlier than 42 months prior to October 17, 2016; and

(ii) Meets the applicable requirements of paragraphs (a)(2), (d), and (e) of this section.

(3) *Frequency for conducting periodic assessments.* The owner or operator of the CCR unit must conduct and complete the assessments required by paragraphs (a)(2), (d), and (e) of this section every five years. The date of completing the initial assessment is the basis for establishing the deadline to complete the first subsequent assessment. If the owner or operator elects to use a previously completed assessment(s) in lieu of the initial assessment as provided by paragraph (f)(2) of this section, the date of the report for the previously completed assessment is the basis for establishing the deadline to complete the first subsequent assessment. The owner or operator may complete any required assessment prior to the required deadline provided the owner or operator places the completed assessment(s) into the facility's operating record within a reasonable amount of time. In all cases, the deadline for completing subsequent assessments is based on the date of completing the previous assessment. For purposes of this paragraph (f)(3), the owner or operator has completed an assessment when the relevant assessment(s) required by paragraphs (a)(2), (d), and (e) of this section has been placed in the facility's operating record as required by § 257.105(f)(5), (10), and (12).

(4) *Closure of the CCR unit.* An owner or operator of a CCR unit who either fails to complete a timely safety factor assessment or fails to demonstrate minimum safety factors as required by paragraph (e) of this section is subject to the requirements of § 257.101(b)(2).

(g) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(f), the notification requirements specified in § 257.106(f), and the internet requirements specified in § 257.107(f).

§ 257.74 Structural integrity criteria for new CCR surface impoundments and any lateral expansion of a CCR surface impoundment.

(a) The requirements of paragraphs (a)(1) through (4) of this section apply to all new CCR surface impoundments and any lateral expansion of a CCR surface impoundment, except for those new CCR surface impoundments that are incised CCR units. If an incised CCR surface impoundment is subsequently modified (e.g., a dike is constructed) such that the CCR unit no longer meets the definition of an incised CCR unit, the CCR unit is subject to the requirements of paragraphs (a)(1) through (4) of this section.

(1) No later than the initial receipt of CCR, the owner or operator of the CCR unit must place on or immediately adjacent to the CCR unit a permanent identification marker, at least six feet high showing the identification number of the CCR unit, if one has been assigned by the state, the name associated with the CCR unit and the name of the owner or operator of the CCR unit.

(2) *Periodic hazard potential classification assessments.* (i) The owner or operator of the CCR unit must conduct initial and periodic hazard potential classification assessments of the CCR unit according to the timeframes specified in paragraph (f) of this section. The owner or operator must document the hazard potential classification of each CCR unit as either a high hazard potential CCR surface impoundment, a significant hazard potential CCR surface impoundment, or a low hazard potential CCR surface impoundment. The owner or operator must also document the basis for each hazard potential classification.

(ii) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the initial hazard potential classification and each subsequent periodic classification specified in paragraph (a)(2)(i) of this section was

conducted in accordance with the requirements of this section.

(3) *Emergency Action Plan (EAP)*—(i) *Development of the plan.* Prior to the initial receipt of CCR in the CCR unit, the owner or operator of a CCR unit determined to be either a high hazard potential CCR surface impoundment or a significant hazard potential CCR surface impoundment under paragraph (a)(2) of this section must prepare and maintain a written EAP. At a minimum, the EAP must:

(A) Define the events or circumstances involving the CCR unit that represent a safety emergency, along with a description of the procedures that will be followed to detect a safety emergency in a timely manner;

(B) Define responsible persons, their respective responsibilities, and notification procedures in the event of a safety emergency involving the CCR unit;

(C) Provide contact information of emergency responders;

(D) Include a map which delineates the downstream area which would be affected in the event of a CCR unit failure and a physical description of the CCR unit; and

(E) Include provisions for an annual face-to-face meeting or exercise between representatives of the owner or operator of the CCR unit and the local emergency responders.

(ii) *Amendment of the plan.* (A) The owner or operator of a CCR unit subject to the requirements of paragraph (a)(3)(i) of this section may amend the written EAP at any time provided the revised plan is placed in the facility's operating record as required by § 257.105(f)(6). The owner or operator must amend the written EAP whenever there is a change in conditions that would substantially affect the EAP in effect.

(B) The written EAP must be evaluated, at a minimum, every five years to ensure the information required in paragraph (a)(3)(i) of this section is accurate. As necessary, the EAP must be updated and a revised EAP placed in the facility's operating record as required by § 257.105(f)(6).

(iii) *Changes in hazard potential classification.* (A) If the owner or operator of a CCR unit determines during a periodic hazard potential assessment that the CCR unit is no longer classified as either a high hazard potential CCR surface impoundment or a significant hazard potential CCR surface impoundment, then the owner or operator of the CCR unit is no longer subject to the requirement to prepare and maintain a written EAP beginning on the date the periodic hazard potential assessment documentation is

placed in the facility's operating record as required by § 257.105(f)(5).

(B) If the owner or operator of a CCR unit classified as a low hazard potential CCR surface impoundment subsequently determines that the CCR unit is properly re-classified as either a high hazard potential CCR surface impoundment or a significant hazard potential CCR surface impoundment, then the owner or operator of the CCR unit must prepare a written EAP for the CCR unit as required by paragraph (a)(3)(i) of this section within six months of completing such periodic hazard potential assessment.

(iv) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the written EAP, and any subsequent amendment of the EAP, meets the requirements of paragraph (a)(3) of this section.

(v) *Activation of the EAP.* The EAP must be implemented once events or circumstances involving the CCR unit that represent a safety emergency are detected, including conditions identified during periodic structural stability assessments, annual inspections, and inspections by a qualified person.

(4) The CCR unit and surrounding areas must be designed, constructed, operated, and maintained with vegetated slopes of dikes not to exceed a height of six inches above the slope of the dike, except for slopes which are protected with an alternate form(s) of slope protection.

(b) The requirements of paragraphs (c) through (e) of this section apply to an owner or operator of a new CCR surface impoundment and any lateral expansion of a CCR surface impoundment that either:

(1) Has a height of five feet or more and a storage volume of 20 acre-feet or more; or

(2) Has a height of 20 feet or more.

(c)(1) No later than the initial receipt of CCR in the CCR unit, the owner or operator unit must compile the design and construction plans for the CCR unit, which must include, to the extent feasible, the information specified in paragraphs (c)(1)(i) through (xi) of this section.

(i) The name and address of the person(s) owning or operating the CCR unit; the name associated with the CCR unit; and the identification number of the CCR unit if one has been assigned by the state.

(ii) The location of the CCR unit identified on the most recent U.S. Geological Survey (USGS) 7½ minute or 15 minute topographic quadrangle map,

or a topographic map of equivalent scale if a USGS map is not available.

(iii) A statement of the purpose for which the CCR unit is being used.

(iv) The name and size in acres of the watershed within which the CCR unit is located.

(v) A description of the physical and engineering properties of the foundation and abutment materials on which the CCR unit is constructed.

(vi) A statement of the type, size, range, and physical and engineering properties of the materials used in constructing each zone or stage of the CCR unit; the method of site preparation and construction of each zone of the CCR unit; and the dates of construction of each successive stage of construction of the CCR unit.

(vii) At a scale that details engineering structures and appurtenances relevant to the design, construction, operation, and maintenance of the CCR unit, detailed dimensional drawings of the CCR unit, including a plan view and cross sections of the length and width of the CCR unit, showing all zones, foundation improvements, drainage provisions, spillways, diversion ditches, outlets, instrument locations, and slope protection, in addition to the normal operating pool surface elevation and the maximum pool surface elevation following peak discharge from the inflow design flood, the expected maximum depth of CCR within the CCR surface impoundment, and any identifiable natural or manmade features that could adversely affect operation of the CCR unit due to malfunction or mis-operation.

(viii) A description of the type, purpose, and location of existing instrumentation.

(ix) Area-capacity curves for the CCR unit.

(x) A description of each spillway and diversion design features and capacities and calculations used in their determination.

(xi) The construction specifications and provisions for surveillance, maintenance, and repair of the CCR unit.

(xii) Any record or knowledge of structural instability of the CCR unit.

(2) *Changes in the design and construction.* If there is a significant change to any information compiled under paragraph (c)(1) of this section, the owner or operator of the CCR unit must update the relevant information and place it in the facility's operating record as required by § 257.105(f)(13).

(d) *Periodic structural stability assessments.* (1) The owner or operator of the CCR unit must conduct initial and periodic structural stability assessments

and document whether the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and CCR wastewater which can be impounded therein. The assessment must, at a minimum, document whether the CCR unit has been designed, constructed, operated, and maintained with:

(i) Stable foundations and abutments;

(ii) Adequate slope protection to protect against surface erosion, wave action, and adverse effects of sudden drawdown;

(iii) Dikes mechanically compacted to a density sufficient to withstand the range of loading conditions in the CCR unit;

(iv) Vegetated slopes of dikes and surrounding areas not to exceed a height of six inches above the slope of the dike, except for slopes which have an alternate form or forms of slope protection;

(v) A single spillway or a combination of spillways configured as specified in paragraph (d)(1)(v)(A) of this section. The combined capacity of all spillways must be designed, constructed, operated, and maintained to adequately manage flow during and following the peak discharge from the event specified in paragraph (d)(1)(v)(B) of this section.

(A) All spillways must be either:

(1) Of non-erodible construction and designed to carry sustained flows; or

(2) Earth- or grass-lined and designed to carry short-term, infrequent flows at non-erosive velocities where sustained flows are not expected.

(B) The combined capacity of all spillways must adequately manage flow during and following the peak discharge from a:

(1) Probable maximum flood (PMF) for a high hazard potential CCR surface impoundment; or

(2) 1000-year flood for a significant hazard potential CCR surface impoundment; or

(3) 100-year flood for a low hazard potential CCR surface impoundment.

(vi) Hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit that maintain structural integrity and are free of significant deterioration, deformation, distortion, bedding deficiencies, sedimentation, and debris which may negatively affect the operation of the hydraulic structure; and

(vii) For CCR units with downstream slopes which can be inundated by the pool of an adjacent water body, such as a river, stream or lake, downstream slopes that maintain structural stability

during low pool of the adjacent water body or sudden drawdown of the adjacent water body.

(2) The periodic assessment described in paragraph (d)(1) of this section must identify any structural stability deficiencies associated with the CCR unit in addition to recommending corrective measures. If a deficiency or a release is identified during the periodic assessment, the owner or operator unit must remedy the deficiency or release as soon as feasible and prepare documentation detailing the corrective measures taken.

(3) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the initial assessment and each subsequent periodic assessment was conducted in accordance with the requirements of this section.

(e) *Periodic safety factor assessments.*

(1) The owner or operator must conduct an initial and periodic safety factor assessments for each CCR unit and document whether the calculated factors of safety for each CCR unit achieve the minimum safety factors specified in paragraphs (e)(1)(i) through (v) of this section for the critical cross section of the embankment. The critical cross section is the cross section anticipated to be the most susceptible of all cross sections to structural failure based on appropriate engineering considerations, including loading conditions. The safety factor assessments must be supported by appropriate engineering calculations.

(i) The calculated static factor of safety under the end-of-construction loading condition must equal or exceed 1.30. The assessment of this loading condition is only required for the initial safety factor assessment and is not required for subsequent assessments.

(ii) The calculated static factor of safety under the long-term, maximum storage pool loading condition must equal or exceed 1.50.

(iii) The calculated static factor of safety under the maximum surcharge pool loading condition must equal or exceed 1.40.

(iv) The calculated seismic factor of safety must equal or exceed 1.00.

(v) For dikes constructed of soils that have susceptibility to liquefaction, the calculated liquefaction factor of safety must equal or exceed 1.20.

(2) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the initial assessment and each subsequent periodic assessment specified in paragraph (e)(1) of this section meets the requirements of this section.

(f) *Timeframes for periodic assessments—(1) Initial assessments.* Except as provided by paragraph (f)(2) of this section, the owner or operator of the CCR unit must complete the initial assessments required by paragraphs (a)(2), (d), and (e) of this section prior to the initial receipt of CCR in the unit. The owner or operator has completed an initial assessment when the owner or operator has placed the assessment required by paragraphs (a)(2), (d), and (e) of this section in the facility's operating record as required by § 257.105(f)(5), (10), and (12).

(2) *Frequency for conducting periodic assessments.* The owner or operator of the CCR unit must conduct and complete the assessments required by paragraphs (a)(2), (d), and (e) of this section every five years. The date of completing the initial assessment is the basis for establishing the deadline to complete the first subsequent assessment. The owner or operator may complete any required assessment prior to the required deadline provided the owner or operator places the completed assessment(s) into the facility's operating record within a reasonable amount of time. In all cases, the deadline for completing subsequent assessments is based on the date of completing the previous assessment. For purposes of this paragraph (f)(2), the owner or operator has completed an assessment when the relevant assessment(s) required by paragraphs (a)(2), (d), and (e) of this section has been placed in the facility's operating record as required by § 257.105(f)(5), (10), and (12).

(3) *Failure to document minimum safety factors during the initial assessment.* Until the date an owner or operator of a CCR unit documents that the calculated factors of safety achieve the minimum safety factors specified in paragraphs (e)(1)(i) through (v) of this section, the owner or operator is prohibited from placing CCR in such unit.

(4) *Closure of the CCR unit.* An owner or operator of a CCR unit who either fails to complete a timely periodic safety factor assessment or fails to demonstrate minimum safety factors as required by paragraph (e) of this section is subject to the requirements of § 257.101(c).

(g) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(f), the notification requirements specified in § 257.106(f), and the internet requirements specified in § 257.107(f).

Operating Criteria

§ 257.80 Air criteria.

(a) The owner or operator of a CCR landfill, CCR surface impoundment, or any lateral expansion of a CCR unit must adopt measures that will effectively minimize CCR from becoming airborne at the facility, including CCR fugitive dust originating from CCR units, roads, and other CCR management and material handling activities.

(b) *CCR fugitive dust control plan.* The owner or operator of the CCR unit must prepare and operate in accordance with a CCR fugitive dust control plan as specified in paragraphs (b)(1) through (7) of this section. This requirement applies in addition to, not in place of, any applicable standards under the Occupational Safety and Health Act.

(1) The CCR fugitive dust control plan must identify and describe the CCR fugitive dust control measures the owner or operator will use to minimize CCR from becoming airborne at the facility. The owner or operator must select, and include in the CCR fugitive dust control plan, the CCR fugitive dust control measures that are most appropriate for site conditions, along with an explanation of how the measures selected are applicable and appropriate for site conditions. Examples of control measures that may be appropriate include: Locating CCR inside an enclosure or partial enclosure; operating a water spray or fogging system; reducing fall distances at material drop points; using wind barriers, compaction, or vegetative covers; establishing and enforcing reduced vehicle speed limits; paving and sweeping roads; covering trucks transporting CCR; reducing or halting operations during high wind events; or applying a daily cover.

(2) If the owner or operator operates a CCR landfill or any lateral expansion of a CCR landfill, the CCR fugitive dust control plan must include procedures to emplace CCR as conditioned CCR. Conditioned CCR means wetting CCR with water to a moisture content that will prevent wind dispersal, but will not result in free liquids. In lieu of water, CCR conditioning may be accomplished with an appropriate chemical dust suppression agent.

(3) The CCR fugitive dust control plan must include procedures to log citizen complaints received by the owner or operator involving CCR fugitive dust events at the facility.

(4) The CCR fugitive dust control plan must include a description of the procedures the owner or operator will

follow to periodically assess the effectiveness of the control plan.

(5) The owner or operator of a CCR unit must prepare an initial CCR fugitive dust control plan for the facility no later than October 19, 2015, or by initial receipt of CCR in any CCR unit at the facility if the owner or operator becomes subject to this subpart after October 19, 2015. The owner or operator has completed the initial CCR fugitive dust control plan when the plan has been placed in the facility's operating record as required by § 257.105(g)(1).

(6) *Amendment of the plan.* The owner or operator of a CCR unit subject to the requirements of this section may amend the written CCR fugitive dust control plan at any time provided the revised plan is placed in the facility's operating record as required by § 257.105(g)(1). The owner or operator must amend the written plan whenever there is a change in conditions that would substantially affect the written plan in effect, such as the construction and operation of a new CCR unit.

(7) The owner or operator must obtain a certification from a qualified professional engineer that the initial CCR fugitive dust control plan, or any subsequent amendment of it, meets the requirements of this section.

(c) *Annual CCR fugitive dust control report.* The owner or operator of a CCR unit must prepare an annual CCR fugitive dust control report that includes a description of the actions taken by the owner or operator to control CCR fugitive dust, a record of all citizen complaints, and a summary of any corrective measures taken. The initial annual report must be completed no later than 14 months after placing the initial CCR fugitive dust control plan in the facility's operating record. The deadline for completing a subsequent report is one year after the date of completing the previous report. For purposes of this paragraph (c), the owner or operator has completed the annual CCR fugitive dust control report when the plan has been placed in the facility's operating record as required by § 257.105(g)(2).

(d) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(g), the notification requirements specified in § 257.106(g), and the internet requirements specified in § 257.107(g).

§ 257.81 Run-on and run-off controls for CCR landfills.

(a) The owner or operator of an existing or new CCR landfill or any lateral expansion of a CCR landfill must

design, construct, operate, and maintain:

(1) A run-on control system to prevent flow onto the active portion of the CCR unit during the peak discharge from a 24-hour, 25-year storm; and

(2) A run-off control system from the active portion of the CCR unit to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(b) Run-off from the active portion of the CCR unit must be handled in accordance with the surface water requirements under § 257.3–3.

(c) *Run-on and run-off control system plan—(1) Content of the plan.* The owner or operator must prepare initial and periodic run-on and run-off control system plans for the CCR unit according to the timeframes specified in paragraphs (c)(3) and (4) of this section. These plans must document how the run-on and run-off control systems have been designed and constructed to meet the applicable requirements of this section. Each plan must be supported by appropriate engineering calculations. The owner or operator has completed the initial run-on and run-off control system plan when the plan has been placed in the facility's operating record as required by § 257.105(g)(3).

(2) *Amendment of the plan.* The owner or operator may amend the written run-on and run-off control system plan at any time provided the revised plan is placed in the facility's operating record as required by § 257.105(g)(3). The owner or operator must amend the written run-on and run-off control system plan whenever there is a change in conditions that would substantially affect the written plan in effect.

(3) *Timeframes for preparing the initial plan—(i) Existing CCR landfills.* The owner or operator of the CCR unit must prepare the initial run-on and run-off control system plan no later than October 17, 2016.

(ii) *New CCR landfills and any lateral expansion of a CCR landfill.* The owner or operator must prepare the initial run-on and run-off control system plan no later than the date of initial receipt of CCR in the CCR unit.

(4) *Frequency for revising the plan.* The owner or operator of the CCR unit must prepare periodic run-on and run-off control system plans required by paragraph (c)(1) of this section every five years. The date of completing the initial plan is the basis for establishing the deadline to complete the first subsequent plan. The owner or operator may complete any required plan prior to the required deadline provided the owner or operator places the completed plan into the facility's operating record

within a reasonable amount of time. In all cases, the deadline for completing a subsequent plan is based on the date of completing the previous plan. For purposes of this paragraph (c)(4), the owner or operator has completed a periodic run-on and run-off control system plan when the plan has been placed in the facility's operating record as required by § 257.105(g)(3).

(5) The owner or operator must obtain a certification from a qualified professional engineer stating that the initial and periodic run-on and run-off control system plans meet the requirements of this section.

(d) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(g), the notification requirements specified in § 257.106(g), and the internet requirements specified in § 257.107(g).

§ 257.82 Hydrologic and hydraulic capacity requirements for CCR surface impoundments.

(a) The owner or operator of an existing or new CCR surface impoundment or any lateral expansion of a CCR surface impoundment must design, construct, operate, and maintain an inflow design flood control system as specified in paragraphs (a)(1) and (2) of this section.

(1) The inflow design flood control system must adequately manage flow into the CCR unit during and following the peak discharge of the inflow design flood specified in paragraph (a)(3) of this section.

(2) The inflow design flood control system must adequately manage flow from the CCR unit to collect and control the peak discharge resulting from the inflow design flood specified in paragraph (a)(3) of this section.

(3) The inflow design flood is:

(i) For a high hazard potential CCR surface impoundment, as determined under § 257.73(a)(2) or § 257.74(a)(2), the probable maximum flood;

(ii) For a significant hazard potential CCR surface impoundment, as determined under § 257.73(a)(2) or § 257.74(a)(2), the 1,000-year flood;

(iii) For a low hazard potential CCR surface impoundment, as determined under § 257.73(a)(2) or § 257.74(a)(2), the 100-year flood; or

(iv) For an incised CCR surface impoundment, the 25-year flood.

(b) Discharge from the CCR unit must be handled in accordance with the surface water requirements under § 257.3–3.

(c) *Inflow design flood control system plan—(1) Content of the plan.* The owner or operator must prepare initial

and periodic inflow design flood control system plans for the CCR unit according to the timeframes specified in paragraphs (c)(3) and (4) of this section. These plans must document how the inflow design flood control system has been designed and constructed to meet the requirements of this section. Each plan must be supported by appropriate engineering calculations. The owner or operator of the CCR unit has completed the inflow design flood control system plan when the plan has been placed in the facility's operating record as required by § 257.105(g)(4).

(2) *Amendment of the plan.* The owner or operator of the CCR unit may amend the written inflow design flood control system plan at any time provided the revised plan is placed in the facility's operating record as required by § 257.105(g)(4). The owner or operator must amend the written inflow design flood control system plan whenever there is a change in conditions that would substantially affect the written plan in effect.

(3) *Timeframes for preparing the initial plan—(i) Existing CCR surface impoundments.* The owner or operator of the CCR unit must prepare the initial inflow design flood control system plan no later than October 17, 2016.

(ii) *New CCR surface impoundments and any lateral expansion of a CCR surface impoundment.* The owner or operator must prepare the initial inflow design flood control system plan no later than the date of initial receipt of CCR in the CCR unit.

(4) *Frequency for revising the plan.* The owner or operator must prepare periodic inflow design flood control system plans required by paragraph (c)(1) of this section every five years. The date of completing the initial plan is the basis for establishing the deadline to complete the first periodic plan. The owner or operator may complete any required plan prior to the required deadline provided the owner or operator places the completed plan into the facility's operating record within a reasonable amount of time. In all cases, the deadline for completing a subsequent plan is based on the date of completing the previous plan. For purposes of this paragraph (c)(4), the owner or operator has completed an inflow design flood control system plan when the plan has been placed in the facility's operating record as required by § 257.105(g)(4).

(5) The owner or operator must obtain a certification from a qualified professional engineer stating that the initial and periodic inflow design flood control system plans meet the requirements of this section.

(d) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(g), the notification requirements specified in § 257.106(g), and the internet requirements specified in § 257.107(g).

§ 257.83 Inspection requirements for CCR surface impoundments.

(a) *Inspections by a qualified person.* (1) All CCR surface impoundments and any lateral expansion of a CCR surface impoundment must be examined by a qualified person as follows:

(i) At intervals not exceeding seven days, inspect for any appearances of actual or potential structural weakness and other conditions which are disrupting or have the potential to disrupt the operation or safety of the CCR unit;

(ii) At intervals not exceeding seven days, inspect the discharge of all outlets of hydraulic structures which pass underneath the base of the surface impoundment or through the dike of the CCR unit for abnormal discoloration, flow or discharge of debris or sediment; and

(iii) At intervals not exceeding 30 days, monitor all CCR unit instrumentation.

(iv) The results of the inspection by a qualified person must be recorded in the facility's operating record as required by § 257.105(g)(5).

(2) *Timeframes for inspections by a qualified person—(i) Existing CCR surface impoundments.* The owner or operator of the CCR unit must initiate the inspections required under paragraph (a) of this section no later than October 19, 2015.

(ii) *New CCR surface impoundments and any lateral expansion of a CCR surface impoundment.* The owner or operator of the CCR unit must initiate the inspections required under paragraph (a) of this section upon initial receipt of CCR by the CCR unit.

(b) *Annual inspections by a qualified professional engineer.* (1) If the existing or new CCR surface impoundment or any lateral expansion of the CCR surface impoundment is subject to the periodic structural stability assessment requirements under § 257.73(d) or § 257.74(d), the CCR unit must additionally be inspected on a periodic basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection must, at a minimum, include:

(i) A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., CCR unit design and construction information required by §§ 257.73(c)(1) and 257.74(c)(1), previous periodic structural stability assessments required under §§ 257.73(d) and 257.74(d), the results of inspections by a qualified person, and results of previous annual inspections);

(ii) A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures; and

(iii) A visual inspection of any hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.

(2) *Inspection report.* The qualified professional engineer must prepare a report following each inspection that addresses the following:

(i) Any changes in geometry of the impounding structure since the previous annual inspection;

(ii) The location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection;

(iii) The approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since the previous annual inspection;

(iv) The storage capacity of the impounding structure at the time of the inspection;

(v) The approximate volume of the impounded water and CCR at the time of the inspection;

(vi) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures; and

(vii) Any other change(s) which may have affected the stability or operation of the impounding structure since the previous annual inspection.

(3) *Timeframes for conducting the initial inspection—(i) Existing CCR surface impoundments.* The owner or operator of the CCR unit must complete the initial inspection required by paragraphs (b)(1) and (2) of this section no later than January 18, 2016.

(ii) *New CCR surface impoundments and any lateral expansion of a CCR surface impoundment.* The owner or operator of the CCR unit must complete the initial annual inspection required by paragraphs (b)(1) and (2) of this section is completed no later than 14 months

following the date of initial receipt of CCR in the CCR unit.

(4) *Frequency of inspections.* (i) Except as provided for in paragraph (b)(4)(ii) of this section, the owner or operator of the CCR unit must conduct the inspection required by paragraphs (b)(1) and (2) of this section on an annual basis. The date of completing the initial inspection report is the basis for establishing the deadline to complete the first subsequent inspection. Any required inspection may be conducted prior to the required deadline provided the owner or operator places the completed inspection report into the facility's operating record within a reasonable amount of time. In all cases, the deadline for completing subsequent inspection reports is based on the date of completing the previous inspection report. For purposes of this section, the owner or operator has completed an inspection when the inspection report has been placed in the facility's operating record as required by § 257.105(g)(6).

(ii) In any calendar year in which both the periodic inspection by a qualified professional engineer and the quinquennial (occurring every five years) structural stability assessment by a qualified professional engineer required by §§ 257.73(d) and 257.74(d) are required to be completed, the annual inspection is not required, provided the structural stability assessment is completed during the calendar year. If the annual inspection is not conducted in a year as provided by this paragraph (b)(4)(ii), the deadline for completing the next annual inspection is one year from the date of completing the quinquennial structural stability assessment.

(5) If a deficiency or release is identified during an inspection, the owner or operator must remedy the deficiency or release as soon as feasible and prepare documentation detailing the corrective measures taken.

(c) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(g), the notification requirements specified in § 257.106(g), and the internet requirements specified in § 257.107(g).

§ 257.84 Inspection requirements for CCR landfills.

(a) *Inspections by a qualified person.* (1) All CCR landfills and any lateral expansion of a CCR landfill must be examined by a qualified person as follows:

(i) At intervals not exceeding seven days, inspect for any appearances of actual or potential structural weakness

and other conditions which are disrupting or have the potential to disrupt the operation or safety of the CCR unit; and

(ii) The results of the inspection by a qualified person must be recorded in the facility's operating record as required by § 257.105(g)(8).

(2) *Timeframes for inspections by a qualified person—(i) Existing CCR landfills.* The owner or operator of the CCR unit must initiate the inspections required under paragraph (a) of this section no later than October 19, 2015.

(ii) *New CCR landfills and any lateral expansion of a CCR landfill.* The owner or operator of the CCR unit must initiate the inspections required under paragraph (a) of this section upon initial receipt of CCR by the CCR unit.

(b) *Annual inspections by a qualified professional engineer.* (1) Existing and new CCR landfills and any lateral expansion of a CCR landfill must be inspected on a periodic basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection must, at a minimum, include:

(i) A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., the results of inspections by a qualified person, and results of previous annual inspections); and

(ii) A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit.

(2) *Inspection report.* The qualified professional engineer must prepare a report following each inspection that addresses the following:

(i) Any changes in geometry of the structure since the previous annual inspection;

(ii) The approximate volume of CCR contained in the unit at the time of the inspection;

(iii) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit; and

(iv) Any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection.

(3) *Timeframes for conducting the initial inspection—(i) Existing CCR landfills.* The owner or operator of the CCR unit must complete the initial inspection required by paragraphs (b)(1) and (2) of this section no later than January 18, 2016.

(ii) *New CCR landfills and any lateral expansion of a CCR landfill.* The owner or operator of the CCR unit must complete the initial annual inspection required by paragraphs (b)(1) and (2) of this section no later than 14 months following the date of initial receipt of CCR in the CCR unit.

(4) *Frequency of inspections.* The owner or operator of the CCR unit must conduct the inspection required by paragraphs (b)(1) and (2) of this section on an annual basis. The date of completing the initial inspection report is the basis for establishing the deadline to complete the first subsequent inspection. Any required inspection may be conducted prior to the required deadline provided the owner or operator places the completed inspection report into the facility's operating record within a reasonable amount of time. In all cases, the deadline for completing subsequent inspection reports is based on the date of completing the previous inspection report. For purposes of this section, the owner or operator has completed an inspection when the inspection report has been placed in the facility's operating record as required by § 257.105(g)(9).

(5) If a deficiency or release is identified during an inspection, the owner or operator must remedy the deficiency or release as soon as feasible and prepare documentation detailing the corrective measures taken.

(c) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(g), the notification requirements specified in § 257.106(g), and the internet requirements specified in § 257.107(g).

Groundwater Monitoring and Corrective Action

§ 257.90 Applicability.

(a) Except as provided for in § 257.100 for inactive CCR surface impoundments, all CCR landfills, CCR surface impoundments, and lateral expansions of CCR units are subject to the groundwater monitoring and corrective action requirements under §§ 257.90 through 257.98.

(b) *Initial timeframes—(1) Existing CCR landfills and existing CCR surface impoundments.* No later than October 17, 2017, the owner or operator of the CCR unit must be in compliance with the following groundwater monitoring requirements:

(i) Install the groundwater monitoring system as required by § 257.91;

(ii) Develop the groundwater sampling and analysis program to include selection of the statistical

procedures to be used for evaluating groundwater monitoring data as required by § 257.93;

(iii) Initiate the detection monitoring program to include obtaining a minimum of eight independent samples for each background and downgradient well as required by § 257.94(b); and

(iv) Begin evaluating the groundwater monitoring data for statistically significant increases over background levels for the constituents listed in appendix III of this part as required by § 257.94.

(2) *New CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units.* Prior to initial receipt of CCR by the CCR unit, the owner or operator must be in compliance with the groundwater monitoring requirements specified in paragraph (b)(1)(i) and (ii) of this section. In addition, the owner or operator of the CCR unit must initiate the detection monitoring program to include obtaining a minimum of eight independent samples for each background well as required by § 257.94(b).

(c) Once a groundwater monitoring system and groundwater monitoring program has been established at the CCR unit as required by this subpart, the owner or operator must conduct groundwater monitoring and, if necessary, corrective action throughout the active life and post-closure care period of the CCR unit.

(d) In the event of a release from a CCR unit, the owner or operator must immediately take all necessary measures to control the source(s) of releases so as to reduce or eliminate, to the maximum extent feasible, further releases of contaminants into the environment. The owner or operator of the CCR unit must comply with all applicable requirements in §§ 257.96, 257.97, and 257.98.

(e) *Annual groundwater monitoring and corrective action report.* For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater

monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1). At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

(1) A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;

(2) Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;

(3) In addition to all the monitoring data obtained under §§ 257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;

(4) A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels); and

(5) Other information required to be included in the annual report as specified in §§ 257.90 through 257.98.

(f) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(h), the notification requirements specified in § 257.106(h), and the internet requirements specified in § 257.107(h).

§ 257.91 Groundwater monitoring systems.

(a) *Performance standard.* The owner or operator of a CCR unit must install a groundwater monitoring system that consists of a sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that:

(1) Accurately represent the quality of background groundwater that has not been affected by leakage from a CCR unit. A determination of background

quality may include sampling of wells that are not hydraulically upgradient of the CCR management area where:

(i) Hydrogeologic conditions do not allow the owner or operator of the CCR unit to determine what wells are hydraulically upgradient; or

(ii) Sampling at other wells will provide an indication of background groundwater quality that is as representative or more representative than that provided by the upgradient wells; and

(2) Accurately represent the quality of groundwater passing the waste boundary of the CCR unit. The downgradient monitoring system must be installed at the waste boundary that ensures detection of groundwater contamination in the uppermost aquifer. All potential contaminant pathways must be monitored.

(b) The number, spacing, and depths of monitoring systems shall be determined based upon site-specific technical information that must include thorough characterization of:

(1) Aquifer thickness, groundwater flow rate, groundwater flow direction including seasonal and temporal fluctuations in groundwater flow; and

(2) Saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer, including, but not limited to, thicknesses, stratigraphy, lithology, hydraulic conductivities, porosities and effective porosities.

(c) The groundwater monitoring system must include the minimum number of monitoring wells necessary to meet the performance standards specified in paragraph (a) of this section, based on the site-specific information specified in paragraph (b) of this section. The groundwater monitoring system must contain:

(1) A minimum of one upgradient and three downgradient monitoring wells; and

(2) Additional monitoring wells as necessary to accurately represent the quality of background groundwater that has not been affected by leakage from the CCR unit and the quality of groundwater passing the waste boundary of the CCR unit.

(d) The owner or operator of multiple CCR units may install a multiunit groundwater monitoring system instead of separate groundwater monitoring systems for each CCR unit.

(1) The multiunit groundwater monitoring system must be equally as capable of detecting monitored constituents at the waste boundary of

the CCR unit as the individual groundwater monitoring system specified in paragraphs (a) through (c) of this section for each CCR unit based on the following factors:

- (i) Number, spacing, and orientation of each CCR unit;
- (ii) Hydrogeologic setting;
- (iii) Site history; and
- (iv) Engineering design of the CCR unit.

(2) If the owner or operator elects to install a multiunit groundwater monitoring system, and if the multiunit system includes at least one existing unlined CCR surface impoundment as determined by § 257.71(a), and if at any time after October 19, 2015 the owner or operator determines in any sampling event that the concentrations of one or more constituents listed in appendix IV to this part are detected at statistically significant levels above the groundwater protection standard established under § 257.95(h) for the multiunit system, then all unlined CCR surface impoundments comprising the multiunit groundwater monitoring system are subject to the closure requirements under § 257.101(a) to retrofit or close.

(e) Monitoring wells must be cased in a manner that maintains the integrity of the monitoring well borehole. This casing must be screened or perforated and packed with gravel or sand, where necessary, to enable collection of groundwater samples. The annular space (*i.e.*, the space between the borehole and well casing) above the sampling depth must be sealed to prevent contamination of samples and the groundwater.

(1) The owner or operator of the CCR unit must document and include in the operating record the design, installation, development, and decommissioning of any monitoring wells, piezometers and other measurement, sampling, and analytical devices. The qualified professional engineer must be given access to this documentation when completing the groundwater monitoring system certification required under paragraph (f) of this section.

(2) The monitoring wells, piezometers, and other measurement, sampling, and analytical devices must be operated and maintained so that they perform to the design specifications throughout the life of the monitoring program.

(f) The owner or operator must obtain a certification from a qualified professional engineer stating that the groundwater monitoring system has been designed and constructed to meet the requirements of this section. If the groundwater monitoring system

includes the minimum number of monitoring wells specified in paragraph (c)(1) of this section, the certification must document the basis supporting this determination.

(g) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(h), the notification requirements specified in § 257.106(h), and the internet requirements specified in § 257.107(h).

§ 257.92 [Reserved]

§ 257.93 Groundwater sampling and analysis requirements.

(a) The groundwater monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of groundwater quality at the background and downgradient wells required by § 257.91. The owner or operator of the CCR unit must develop a sampling and analysis program that includes procedures and techniques for:

- (1) Sample collection;
- (2) Sample preservation and shipment;
- (3) Analytical procedures;
- (4) Chain of custody control; and
- (5) Quality assurance and quality control.

(b) The groundwater monitoring program must include sampling and analytical methods that are appropriate for groundwater sampling and that accurately measure hazardous constituents and other monitoring parameters in groundwater samples. For purposes of §§ 257.90 through 257.98, the term *constituent* refers to both hazardous constituents and other monitoring parameters listed in either appendix III or IV of this part.

(c) Groundwater elevations must be measured in each well immediately prior to purging, each time groundwater is sampled. The owner or operator of the CCR unit must determine the rate and direction of groundwater flow each time groundwater is sampled. Groundwater elevations in wells which monitor the same CCR management area must be measured within a period of time short enough to avoid temporal variations in groundwater flow which could preclude accurate determination of groundwater flow rate and direction.

(d) The owner or operator of the CCR unit must establish background groundwater quality in a hydraulically upgradient or background well(s) for each of the constituents required in the particular groundwater monitoring program that applies to the CCR unit as determined under § 257.94(a) or

§ 257.95(a). Background groundwater quality may be established at wells that are not located hydraulically upgradient from the CCR unit if it meets the requirements of § 257.91(a)(1).

(e) The number of samples collected when conducting detection monitoring and assessment monitoring (for both downgradient and background wells) must be consistent with the statistical procedures chosen under paragraph (f) of this section and the performance standards under paragraph (g) of this section. The sampling procedures shall be those specified under § 257.94(b) through (d) for detection monitoring, § 257.95(b) through (d) for assessment monitoring, and § 257.96(b) for corrective action.

(f) The owner or operator of the CCR unit must select one of the statistical methods specified in paragraphs (f)(1) through (5) of this section to be used in evaluating groundwater monitoring data for each specified constituent. The statistical test chosen shall be conducted separately for each constituent in each monitoring well.

(1) A parametric analysis of variance followed by multiple comparison procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

(2) An analysis of variance based on ranks followed by multiple comparison procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

(3) A tolerance or prediction interval procedure, in which an interval for each constituent is established from the distribution of the background data and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

(4) A control chart approach that gives control limits for each constituent.

(5) Another statistical test method that meets the performance standards of paragraph (g) of this section.

(6) The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating that the selected statistical method is appropriate for evaluating the groundwater monitoring data for the CCR management area. The certification must include a narrative description of the statistical method selected to evaluate the groundwater monitoring data.

(g) Any statistical method chosen under paragraph (f) of this section shall comply with the following performance standards, as appropriate, based on the statistical test method used:

(1) The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of constituents. Normal distributions of data values shall use parametric methods. Non-normal distributions shall use non-parametric methods. If the distribution of the constituents is shown by the owner or operator of the CCR unit to be inappropriate for a normal theory test, then the data must be transformed or a distribution-free (non-parametric) theory test must be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(2) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparison procedure is used, the Type I experiment wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.

(3) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be such that this approach is at least as effective as any other approach in this section for evaluating groundwater data. The parameter values shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(4) If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be such that this approach is at least as effective as any other approach in this section for evaluating groundwater data. These parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(5) The statistical method must account for data below the limit of detection with one or more statistical procedures that shall at least as effective as any other approach in this section for evaluating groundwater data. Any practical quantitation limit that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(6) If necessary, the statistical method must include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(h) The owner or operator of the CCR unit must determine whether or not there is a statistically significant increase over background values for each constituent required in the particular groundwater monitoring program that applies to the CCR unit, as determined under § 257.94(a) or § 257.95(a).

(1) In determining whether a statistically significant increase has occurred, the owner or operator must compare the groundwater quality of each constituent at each monitoring well designated pursuant to § 257.91(a)(2) or (d)(1) to the background value of that constituent, according to the statistical procedures and performance standards specified under paragraphs (f) and (g) of this section.

(2) Within 90 days after completing sampling and analysis, the owner or operator must determine whether there has been a statistically significant increase over background for any constituent at each monitoring well.

(i) The owner or operator must measure "total recoverable metals" concentrations in measuring groundwater quality. Measurement of total recoverable metals captures both the particulate fraction and dissolved fraction of metals in natural waters. Groundwater samples shall not be field-filtered prior to analysis.

(j) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(h), the notification requirements specified in § 257.106(h), and the Internet requirements specified in § 257.107(h).

§ 257.94 Detection monitoring program.

(a) The owner or operator of a CCR unit must conduct detection monitoring at all groundwater monitoring wells consistent with this section. At a minimum, a detection monitoring program must include groundwater

monitoring for all constituents listed in appendix III to this part.

(b) Except as provided in paragraph (d) of this section, the monitoring frequency for the constituents listed in appendix III to this part shall be at least semiannual during the active life of the CCR unit and the post-closure period. For existing CCR landfills and existing CCR surface impoundments, a minimum of eight independent samples from each background and downgradient well must be collected and analyzed for the constituents listed in appendix III and IV to this part no later than October 17, 2017. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, a minimum of eight independent samples for each background well must be collected and analyzed for the constituents listed in appendices III and IV to this part during the first six months of sampling.

(c) The number of samples collected and analyzed for each background well and downgradient well during subsequent semiannual sampling events must be consistent with § 257.93(e), and must account for any unique characteristics of the site, but must be at least one sample from each background and downgradient well.

(d) The owner or operator of a CCR unit may demonstrate the need for an alternative monitoring frequency for repeated sampling and analysis for constituents listed in appendix III to this part during the active life and the post-closure care period based on the availability of groundwater. If there is not adequate groundwater flow to sample wells semiannually, the alternative frequency shall be no less than annual. The need to vary monitoring frequency must be evaluated on a site-specific basis. The demonstration must be supported by, at a minimum, the information specified in paragraphs (d)(1) and (2) of this section.

(1) Information documenting that the need for less frequent sampling. The alternative frequency must be based on consideration of the following factors:

(i) Lithology of the aquifer and unsaturated zone;

(ii) Hydraulic conductivity of the aquifer and unsaturated zone; and

(iii) Groundwater flow rates.

(2) Information documenting that the alternative frequency will be no less effective in ensuring that any leakage from the CCR unit will be discovered within a timeframe that will not materially delay establishment of an assessment monitoring program.

(3) The owner or operator must obtain a certification from a qualified

professional engineer stating that the demonstration for an alternative groundwater sampling and analysis frequency meets the requirements of this section. The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer in the annual groundwater monitoring and corrective action report required by § 257.90(e).

(e) If the owner or operator of the CCR unit determines, pursuant to § 257.93(h) that there is a statistically significant increase over background levels for one or more of the constituents listed in appendix III to this part at any monitoring well at the waste boundary specified under § 257.91(a)(2), the owner or operator must:

(1) Except as provided for in paragraph (e)(2) of this section, within 90 days of detecting a statistically significant increase over background levels for any constituent, establish an assessment monitoring program meeting the requirements of § 257.95.

(2) The owner or operator may demonstrate that a source other than the CCR unit caused the statistically significant increase over background levels for a constituent or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. The owner or operator must complete the written demonstration within 90 days of detecting a statistically significant increase over background levels to include obtaining a certification from a qualified professional engineer verifying the accuracy of the information in the report. If a successful demonstration is completed within the 90-day period, the owner or operator of the CCR unit may continue with a detection monitoring program under this section. If a successful demonstration is not completed within the 90-day period, the owner or operator of the CCR unit must initiate an assessment monitoring program as required under § 257.95. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer.

(3) The owner or operator of a CCR unit must prepare a notification stating that an assessment monitoring program has been established. The owner or operator has completed the notification when the notification is placed in the facility's operating record as required by § 257.105(h)(5).

(f) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(h), the notification requirements specified in § 257.106(h), and the Internet requirements specified in § 257.107(h).

§ 257.95 Assessment monitoring program.

(a) Assessment monitoring is required whenever a statistically significant increase over background levels has been detected for one or more of the constituents listed in appendix III to this part.

(b) Within 90 days of triggering an assessment monitoring program, and annually thereafter, the owner or operator of the CCR unit must sample and analyze the groundwater for all constituents listed in appendix IV to this part. The number of samples collected and analyzed for each well during each sampling event must be consistent with § 257.93(e), and must account for any unique characteristics of the site, but must be at least one sample from each well.

(c) The owner or operator of a CCR unit may demonstrate the need for an alternative monitoring frequency for repeated sampling and analysis for constituents listed in appendix IV to this part during the active life and the post-closure care period based on the availability of groundwater. If there is not adequate groundwater flow to sample wells semiannually, the alternative frequency shall be no less than annual. The need to vary monitoring frequency must be evaluated on a site-specific basis. The demonstration must be supported by, at a minimum, the information specified in paragraphs (c)(1) and (2) of this section.

(1) Information documenting that the need for less frequent sampling. The alternative frequency must be based on consideration of the following factors:

- (i) Lithology of the aquifer and unsaturated zone;
- (ii) Hydraulic conductivity of the aquifer and unsaturated zone; and
- (iii) Groundwater flow rates.

(2) Information documenting that the alternative frequency will be no less effective in ensuring that any leakage from the CCR unit will be discovered within a timeframe that will not materially delay the initiation of any necessary remediation measures.

(3) The owner or operator must obtain a certification from a qualified professional engineer stating that the demonstration for an alternative groundwater sampling and analysis frequency meets the requirements of this section. The owner or operator must

include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer in the annual groundwater monitoring and corrective action report required by § 257.90(e).

(d) After obtaining the results from the initial and subsequent sampling events required in paragraph (b) of this section, the owner or operator must:

(1) Within 90 days of obtaining the results, and on at least a semiannual basis thereafter, resample all wells that were installed pursuant to the requirements of § 257.91, conduct analyses for all parameters in appendix III to this part and for those constituents in appendix IV to this part that are detected in response to paragraph (b) of this section, and record their concentrations in the facility operating record. The number of samples collected and analyzed for each background well and downgradient well during subsequent semiannual sampling events must be consistent with § 257.93(e), and must account for any unique characteristics of the site, but must be at least one sample from each background and downgradient well;

(2) Establish groundwater protection standards for all constituents detected pursuant to paragraph (b) or (d) of this section. The groundwater protection standards must be established in accordance with paragraph (h) of this section; and

(3) Include the recorded concentrations required by paragraph (d)(1) of this section, identify the background concentrations established under § 257.94(b), and identify the groundwater protection standards established under paragraph (d)(2) of this section in the annual groundwater monitoring and corrective action report required by § 257.90(e).

(e) If the concentrations of all constituents listed in appendices III and IV to this part are shown to be at or below background values, using the statistical procedures in § 257.93(g), for two consecutive sampling events, the owner or operator may return to detection monitoring of the CCR unit. The owner or operator must prepare a notification stating that detection monitoring is resuming for the CCR unit. The owner or operator has completed the notification when the notification is placed in the facility's operating record as required by § 257.105(h)(7).

(f) If the concentrations of any constituent in appendices III and IV to this part are above background values, but all concentrations are below the groundwater protection standard

established under paragraph (h) of this section, using the statistical procedures in § 257.93(g), the owner or operator must continue assessment monitoring in accordance with this section.

(g) If one or more constituents in appendix IV to this part are detected at statistically significant levels above the groundwater protection standard established under paragraph (h) of this section in any sampling event, the owner or operator must prepare a notification identifying the constituents in appendix IV to this part that have exceeded the groundwater protection standard. The owner or operator has completed the notification when the notification is placed in the facility's operating record as required by § 257.105(h)(8). The owner or operator of the CCR unit also must:

(1) Characterize the nature and extent of the release and any relevant site conditions that may affect the remedy ultimately selected. The characterization must be sufficient to support a complete and accurate assessment of the corrective measures necessary to effectively clean up all releases from the CCR unit pursuant to § 257.96. Characterization of the release includes the following minimum measures:

(i) Install additional monitoring wells necessary to define the contaminant plume(s);

(ii) Collect data on the nature and estimated quantity of material released including specific information on the constituents listed in appendix IV of this part and the levels at which they are present in the material released;

(iii) Install at least one additional monitoring well at the facility boundary in the direction of contaminant migration and sample this well in accordance with paragraph (d)(1) of this section; and

(iv) Sample all wells in accordance with paragraph (d)(1) of this section to characterize the nature and extent of the release.

(2) Notify all persons who own the land or reside on the land that directly overlies any part of the plume of contamination if contaminants have migrated off-site if indicated by sampling of wells in accordance with paragraph (g)(1) of this section. The owner or operator has completed the notifications when they are placed in the facility's operating record as required by § 257.105(h)(8).

(3) Within 90 days of finding that any of the constituents listed in appendix IV to this part have been detected at a statistically significant level exceeding the groundwater protection standards the owner or operator must either:

(i) Initiate an assessment of corrective measures as required by § 257.96; or

(ii) Demonstrate that a source other than the CCR unit caused the contamination, or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Any such demonstration must be supported by a report that includes the factual or evidentiary basis for any conclusions and must be certified to be accurate by a qualified professional engineer. If a successful demonstration is made, the owner or operator must continue monitoring in accordance with the assessment monitoring program pursuant to this section, and may return to detection monitoring if the constituents in appendices III and IV to this part are at or below background as specified in paragraph (e) of this section. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer.

(4) If a successful demonstration has not been made at the end of the 90 day period provided by paragraph (g)(3)(ii) of this section, the owner or operator of the CCR unit must initiate the assessment of corrective measures requirements under § 257.96.

(5) If an assessment of corrective measures is required under § 257.96 by either paragraph (g)(3)(i) or (g)(4) of this section, and if the CCR unit is an existing unlined CCR surface impoundment as determined by § 257.71(a), then the CCR unit is subject to the closure requirements under § 257.101(a) to retrofit or close. In addition, the owner or operator must prepare a notification stating that an assessment of corrective measures has been initiated.

(h) The owner or operator of the CCR unit must establish a groundwater protection standard for each constituent in appendix IV to this part detected in the groundwater. The groundwater protection standard shall be:

(1) For constituents for which a maximum contaminant level (MCL) has been established under §§ 141.62 and 141.66 of this title, the MCL for that constituent;

(2) For constituents for which an MCL has not been established, the background concentration for the constituent established from wells in accordance with § 257.91; or

(3) For constituents for which the background level is higher than the MCL identified under paragraph (h)(1)

of this section, the background concentration.

(i) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(h), the notification requirements specified in § 257.106(h), and the Internet requirements specified in § 257.107(h).

§ 257.96 Assessment of corrective measures.

(a) Within 90 days of finding that any constituent listed in appendix IV to this part has been detected at a statistically significant level exceeding the groundwater protection standard defined under § 257.95(h), or immediately upon detection of a release from a CCR unit, the owner or operator must initiate an assessment of corrective measures to prevent further releases, to remediate any releases and to restore affected area to original conditions. The assessment of corrective measures must be completed within 90 days, unless the owner or operator demonstrates the need for additional time to complete the assessment of corrective measures due to site-specific conditions or circumstances. The owner or operator must obtain a certification from a qualified professional engineer attesting that the demonstration is accurate. The 90-day deadline to complete the assessment of corrective measures may be extended for no longer than 60 days. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer.

(b) The owner or operator of the CCR unit must continue to monitor groundwater in accordance with the assessment monitoring program as specified in § 257.95.

(c) The assessment under paragraph (a) of this section must include an analysis of the effectiveness of potential corrective measures in meeting all of the requirements and objectives of the remedy as described under § 257.97 addressing at least the following:

(1) The performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination;

(2) The time required to begin and complete the remedy;

(3) The institutional requirements, such as state or local permit requirements or other environmental or public health requirements that may substantially affect implementation of the remedy(s).

(d) The owner or operator must place the completed assessment of corrective measures in the facility's operating record. The assessment has been completed when it is placed in the facility's operating record as required by § 257.105(h)(10).

(e) The owner or operator must discuss the results of the corrective measures assessment at least 30 days prior to the selection of remedy, in a public meeting with interested and affected parties.

(f) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(h), the notification requirements specified in § 257.106(h), and the Internet requirements specified in § 257.107(h).

§ 257.97 Selection of remedy.

(a) Based on the results of the corrective measures assessment conducted under § 257.96, the owner or operator must, as soon as feasible, select a remedy that, at a minimum, meets the standards listed in paragraph (b) of this section. This requirement applies to, not in place of, any applicable standards under the Occupational Safety and Health Act. The owner or operator must prepare a semiannual report describing the progress in selecting and designing the remedy. Upon selection of a remedy, the owner or operator must prepare a final report describing the selected remedy and how it meets the standards specified in paragraph (b) of this section. The owner or operator must obtain a certification from a qualified professional engineer that the remedy selected meets the requirements of this section. The report has been completed when it is placed in the operating record as required by § 257.105(h)(12).

(b) Remedies must:

(1) Be protective of human health and the environment;

(2) Attain the groundwater protection standard as specified pursuant to § 257.95(h);

(3) Control the source(s) of releases so as to reduce or eliminate, to the maximum extent feasible, further releases of constituents in appendix IV to this part into the environment;

(4) Remove from the environment as much of the contaminated material that was released from the CCR unit as is feasible, taking into account factors such as avoiding inappropriate disturbance of sensitive ecosystems;

(5) Comply with standards for management of wastes as specified in § 257.98(d).

(c) In selecting a remedy that meets the standards of paragraph (b) of this section, the owner or operator of the

CCR unit shall consider the following evaluation factors:

(1) The long- and short-term effectiveness and protectiveness of the potential remedy(s), along with the degree of certainty that the remedy will prove successful based on consideration of the following:

(i) Magnitude of reduction of existing risks;

(ii) Magnitude of residual risks in terms of likelihood of further releases due to CCR remaining following implementation of a remedy;

(iii) The type and degree of long-term management required, including monitoring, operation, and maintenance;

(iv) Short-term risks that might be posed to the community or the environment during implementation of such a remedy, including potential threats to human health and the environment associated with excavation, transportation, and re-disposal of contaminant;

(v) Time until full protection is achieved;

(vi) Potential for exposure of humans and environmental receptors to remaining wastes, considering the potential threat to human health and the environment associated with excavation, transportation, re-disposal, or containment;

(vii) Long-term reliability of the engineering and institutional controls; and

(viii) Potential need for replacement of the remedy.

(2) The effectiveness of the remedy in controlling the source to reduce further releases based on consideration of the following factors:

(i) The extent to which containment practices will reduce further releases; and

(ii) The extent to which treatment technologies may be used.

(3) The ease or difficulty of implementing a potential remedy(s) based on consideration of the following types of factors:

(i) Degree of difficulty associated with constructing the technology;

(ii) Expected operational reliability of the technologies;

(iii) Need to coordinate with and obtain necessary approvals and permits from other agencies;

(iv) Availability of necessary equipment and specialists; and

(v) Available capacity and location of needed treatment, storage, and disposal services.

(4) The degree to which community concerns are addressed by a potential remedy(s).

(d) The owner or operator must specify as part of the selected remedy a

schedule(s) for implementing and completing remedial activities. Such a schedule must require the completion of remedial activities within a reasonable period of time taking into consideration the factors set forth in paragraphs (d)(1) through (6) of this section. The owner or operator of the CCR unit must consider the following factors in determining the schedule of remedial activities:

(1) Extent and nature of contamination, as determined by the characterization required under § 257.95(g);

(2) Reasonable probabilities of remedial technologies in achieving compliance with the groundwater protection standards established under § 257.95(h) and other objectives of the remedy;

(3) Availability of treatment or disposal capacity for CCR managed during implementation of the remedy;

(4) Potential risks to human health and the environment from exposure to contamination prior to completion of the remedy;

(5) Resource value of the aquifer including:

(i) Current and future uses;

(ii) Proximity and withdrawal rate of users;

(iii) Groundwater quantity and quality;

(iv) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to CCR constituents;

(v) The hydrogeologic characteristic of the facility and surrounding land; and

(vi) The availability of alternative water supplies; and

(6) Other relevant factors.

(e) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(h), the notification requirements specified in § 257.106(h), and the Internet requirements specified in § 257.107(h).

§ 257.98 Implementation of the corrective action program.

(a) Within 90 days of selecting a remedy under § 257.97, the owner or operator must initiate remedial activities. Based on the schedule established under § 257.97(d) for implementation and completion of remedial activities the owner or operator must:

(1) Establish and implement a corrective action groundwater monitoring program that:

(i) At a minimum, meets the requirements of an assessment monitoring program under § 257.95;

(ii) Documents the effectiveness of the corrective action remedy; and

(iii) Demonstrates compliance with the groundwater protection standard pursuant to paragraph (c) of this section.

(2) Implement the corrective action remedy selected under § 257.97; and

(3) Take any interim measures necessary to reduce the contaminants leaching from the CCR unit, and/or potential exposures to human or ecological receptors. Interim measures must, to the greatest extent feasible, be consistent with the objectives of and contribute to the performance of any remedy that may be required pursuant to § 257.97. The following factors must be considered by an owner or operator in determining whether interim measures are necessary:

(i) Time required to develop and implement a final remedy;

(ii) Actual or potential exposure of nearby populations or environmental receptors to any of the constituents listed in appendix IV of this part;

(iii) Actual or potential contamination of drinking water supplies or sensitive ecosystems;

(iv) Further degradation of the groundwater that may occur if remedial action is not initiated expeditiously;

(v) Weather conditions that may cause any of the constituents listed in appendix IV to this part to migrate or be released;

(vi) Potential for exposure to any of the constituents listed in appendix IV to this part as a result of an accident or failure of a container or handling system; and

(vii) Other situations that may pose threats to human health and the environment.

(b) If an owner or operator of the CCR unit, determines, at any time, that compliance with the requirements of § 257.97(b) is not being achieved through the remedy selected, the owner or operator must implement other methods or techniques that could feasibly achieve compliance with the requirements.

(c) Remedies selected pursuant to § 257.97 shall be considered complete when:

(1) The owner or operator of the CCR unit demonstrates compliance with the groundwater protection standards established under § 257.95(h) has been achieved at all points within the plume of contamination that lie beyond the groundwater monitoring well system established under § 257.91.

(2) Compliance with the groundwater protection standards established under § 257.95(h) has been achieved by demonstrating that concentrations of constituents listed in appendix IV to this part have not exceeded the groundwater protection standard(s) for a

period of three consecutive years using the statistical procedures and performance standards in § 257.93(f) and (g).

(3) All actions required to complete the remedy have been satisfied.

(d) All CCR that are managed pursuant to a remedy required under § 257.97, or an interim measure required under paragraph (a)(3) of this section, shall be managed in a manner that complies with all applicable RCRA requirements.

(e) Upon completion of the remedy, the owner or operator must prepare a notification stating that the remedy has been completed. The owner or operator must obtain a certification from a qualified professional engineer attesting that the remedy has been completed in compliance with the requirements of paragraph (c) of this section. The report has been completed when it is placed in the operating record as required by § 257.105(h)(13).

(f) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(h), the notification requirements specified in § 257.106(h), and the internet requirements specified in § 257.107(h).

Closure and Post-Closure Care

§ 257.100 Inactive CCR surface impoundments.

(a) Except as provided by paragraph (b) of this section, inactive CCR surface impoundments are subject to all of the requirements of this subpart applicable to existing CCR surface impoundments.

(b) An owner or operator of an inactive CCR surface impoundment that completes closure of such CCR unit, and meets all of the requirements of either paragraphs (b)(1) through (4) of this section or paragraph (b)(5) of this section no later than April 17, 2018, is exempt from all other requirements of this subpart.

(1) *Closure by leaving CCR in place.* If the owner or operator of the inactive CCR surface impoundment elects to close the CCR surface impoundment by leaving CCR in place, the owner or operator must ensure that, at a minimum, the CCR unit is closed in a manner that will:

(i) Control, minimize or eliminate, to the maximum extent feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere;

(ii) Preclude the probability of future impoundment of water, sediment, or slurry;

(iii) Include measures that provide for major slope stability to prevent the

sloughing or movement of the final cover system; and

(iv) Minimize the need for further maintenance of the CCR unit.

(2) The owner or operator of the inactive CCR surface impoundment must meet the requirements of paragraphs (b)(2)(i) and (ii) of this section prior to installing the final cover system required under paragraph (b)(3) of this section.

(i) Free liquids must be eliminated by removing liquid wastes or solidifying the remaining wastes and waste residues.

(ii) Remaining wastes must be stabilized sufficient to support the final cover system.

(3) The owner or operator must install a final cover system that is designed to minimize infiltration and erosion, and at a minimum, meets the requirements of paragraph (b)(3)(i) of this section, or the requirements of an alternative final cover system specified in paragraph (b)(3)(ii) of this section.

(i) The final cover system must be designed and constructed to meet the criteria specified in paragraphs (b)(3)(i)(A) through (D) of this section.

(A) The permeability of the final cover system must be less than or equal to the permeability of any bottom liner system or natural subsoils present, or a permeability no greater than 1×10^{-5} centimeters/second, whichever is less.

(B) The infiltration of liquids through the CCR unit must be minimized by the use of an infiltration layer that contains a minimum of 18 inches of earthen material.

(C) The erosion of the final cover system must be minimized by the use of an erosion layer that contains a minimum of six inches of earthen material that is capable of sustaining native plant growth.

(D) The disruption of the integrity of the final cover system must be minimized through a design that accommodates settling and subsidence.

(ii) The owner or operator may select an alternative final cover system design, provided the alternative final cover system is designed and constructed to meet the criteria in paragraphs (b)(3)(ii)(A) through (C) of this section.

(A) The design of the final cover system must include an infiltration layer that achieves an equivalent reduction in infiltration as the infiltration layer specified in paragraphs (b)(3)(i)(A) and (B) of this section.

(B) The design of the final cover system must include an erosion layer that provides equivalent protection from wind or water erosion as the erosion layer specified in paragraph (b)(3)(i)(C) of this section.

(C) The disruption of the integrity of the final cover system must be minimized through a design that accommodates settling and subsidence.

(4) The owner or operator of the CCR surface impoundment must obtain a written certification from a qualified professional engineer stating that the design of the final cover system meets either the requirements of paragraphs (b)(3)(i) or (ii) of this section.

(5) *Closure through removal of CCR.* The owner or operator may alternatively elect to close an inactive CCR surface impoundment by removing and decontaminating all areas affected by releases from the CCR surface impoundment. CCR removal and decontamination of the CCR surface impoundment are complete when all CCR in the inactive CCR surface impoundment is removed, including the bottom liner of the CCR unit.

(6) The owner or operator of the CCR surface impoundment must obtain a written certification from a qualified professional engineer that closure of the CCR surface impoundment under either paragraphs (b)(1) through (4) or (b)(5) of this section is technically feasible within the timeframe in paragraph (b) of this section.

(7) If the owner or operator of the CCR surface impoundment fails to complete closure of the inactive CCR surface impoundment within the timeframe in paragraph (b) of this section, the CCR unit must comply with all of the requirements applicable to existing CCR surface impoundments under this subpart.

(c) *Required notices and progress reports.* An owner or operator of an inactive CCR surface impoundment that closes in accordance with paragraph (b) of this section must complete the notices and progress reports specified in paragraphs (c)(1) through (3) of this section.

(1) No later than December 17, 2015, the owner or operator must prepare and place in the facility's operating record a notification of intent to initiate closure of the CCR surface impoundment. The notification must state that the CCR surface impoundment is an inactive CCR surface impoundment closing under the requirements of paragraph (b) of this section. The notification must also include a narrative description of how the CCR surface impoundment will be closed, a schedule for completing closure activities, and the required certifications under paragraphs (b)(4) and (6) of this section, if applicable.

(2) The owner or operator must prepare periodic progress reports summarizing the progress of closure implementation, including a description

of the actions completed to date, any problems encountered and a description of the actions taken to resolve the problems, and projected closure activities for the upcoming year. The annual progress reports must be completed according to the following schedule:

(i) The first annual progress report must be prepared no later than 13 months after completing the notification of intent to initiate closure required by paragraph (c)(1) of this section.

(ii) The second annual progress report must be prepared no later than 12 months after completing the first progress report required by paragraph (c)(2)(i) of this section.

(iii) The owner or operator has completed the progress reports specified in paragraph (c)(2) of this section when the reports are placed in the facility's operating record as required by § 257.105(i)(2).

(3) The owner or operator must prepare and place in the facility's operating record a notification of completion of closure of the CCR surface impoundment. The notification must be submitted within 60 days of completing closure of the CCR surface impoundment and must include a written certification from a qualified professional engineer stating that the CCR surface impoundment was closed in accordance with the requirements of either paragraph (b)(1) through (4) or (b)(5) of this section.

(d) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(i), the notification requirements specified in § 257.106(i), and the internet requirements specified in § 257.107(i).

§ 257.101 Closure or retrofit of CCR units.

(a) The owner or operator of an existing unlined CCR surface impoundment, as determined under § 257.71(a), is subject to the requirements of paragraph (a)(1) of this section.

(1) Except as provided by paragraph (a)(3) of this section, if at any time after October 19, 2015 an owner or operator of an existing unlined CCR surface impoundment determines in any sampling event that the concentrations of one or more constituents listed in appendix IV to this part are detected at statistically significant levels above the groundwater protection standard established under § 257.95(h) for such CCR unit, within six months of making such determination, the owner or operator of the existing unlined CCR surface impoundment must cease placing CCR and non-CCR wastestreams

into such CCR surface impoundment and either retrofit or close the CCR unit in accordance with the requirements of § 257.102.

(2) An owner or operator of an existing unlined CCR surface impoundment that closes in accordance with paragraph (a)(1) of this section must include a statement in the notification required under § 257.102(g) or (k)(5) that the CCR surface impoundment is closing or retrofitting under the requirements of paragraph (a)(1) of this section.

(3) The timeframe specified in paragraph (a)(1) of this section does not apply if the owner or operator complies with the alternative closure procedures specified in § 257.103.

(4) At any time after the initiation of closure under paragraph (a)(1) of this section, the owner or operator may cease closure activities and initiate a retrofit of the CCR unit in accordance with the requirements of § 257.102(k).

(b) The owner or operator of an existing CCR surface impoundment is subject to the requirements of paragraph (b)(1) of this section.

(1) Except as provided by paragraph (b)(4) of this section, within six months of determining that an existing CCR surface impoundment has not demonstrated compliance with any location standard specified in §§ 257.60(a), 257.61(a), 257.62(a), 257.63(a), and 257.64(a), the owner or operator of the CCR surface impoundment must cease placing CCR and non-CCR wastestreams into such CCR unit and close the CCR unit in accordance with the requirements of § 257.102.

(2) Within six months of either failing to complete the initial or any subsequent periodic safety factor assessment required by § 257.73(e) by the deadlines specified in § 257.73(f)(1) through (3) or failing to document that the calculated factors of safety for the existing CCR surface impoundment achieve the minimum safety factors specified in § 257.73(e)(1)(i) through (iv), the owner or operator of the CCR surface impoundment must cease placing CCR and non-CCR wastestreams into such CCR unit and close the CCR unit in accordance with the requirements of § 257.102.

(3) An owner or operator of an existing CCR surface impoundment that closes in accordance with paragraphs (b)(1) or (2) of this section must include a statement in the notification required under § 257.102(g) that the CCR surface impoundment is closing under the requirements of paragraphs (b)(1) or (2) of this section.

(4) The timeframe specified in paragraph (b)(1) of this section does not apply if the owner or operator complies with the alternative closure procedures specified in § 257.103.

(c) The owner or operator of a new CCR surface impoundment is subject to the requirements of paragraph (c)(1) of this section.

(1) Within six months of either failing to complete the initial or any subsequent periodic safety factor assessment required by § 257.74(e) by the deadlines specified in § 257.74(f)(1) through (3) or failing to document that the calculated factors of safety for the new CCR surface impoundment achieve the minimum safety factors specified in § 257.74(e)(1)(i) through (v), the owner or operator of the CCR surface impoundment must cease placing CCR and non-CCR wastestreams into such CCR unit and close the CCR unit in accordance with the requirements of § 257.102.

(2) An owner or operator of a new CCR surface impoundment that closes in accordance with paragraph (c)(1) of this section must include a statement in the notification required under § 257.102(g) that the CCR surface impoundment is closing under the requirements of paragraph (c)(1) of this section.

(d) The owner or operator of an existing CCR landfill is subject to the requirements of paragraph (d)(1) of this section.

(1) Except as provided by paragraph (d)(3) of this section, within six months of determining that an existing CCR landfill has not demonstrated compliance with the location restriction for unstable areas specified in § 257.64(a), the owner or operator of the CCR unit must cease placing CCR and non-CCR waste streams into such CCR landfill and close the CCR unit in accordance with the requirements of § 257.102.

(2) An owner or operator of an existing CCR landfill that closes in accordance with paragraph (d)(1) of this section must include a statement in the notification required under § 257.102(g) that the CCR landfill is closing under the requirements of paragraph (d)(1) of this section.

(3) The timeframe specified in paragraph (d)(1) of this section does not apply if the owner or operator complies with the alternative closure procedures specified in § 257.103.

§ 257.102 Criteria for conducting the closure or retrofit of CCR units.

(a) Closure of a CCR landfill, CCR surface impoundment, or any lateral expansion of a CCR unit must be

completed either by leaving the CCR in place and installing a final cover system or through removal of the CCR and decontamination of the CCR unit, as described in paragraphs (b) through (j) of this section. Retrofit of a CCR surface impoundment must be completed in accordance with the requirements in paragraph (k) of this section.

(b) *Written closure plan*—(1) *Content of the plan.* The owner or operator of a CCR unit must prepare a written closure plan that describes the steps necessary to close the CCR unit at any point during the active life of the CCR unit consistent with recognized and generally accepted good engineering practices. The written closure plan must include, at a minimum, the information specified in paragraphs (b)(1)(i) through (vi) of this section.

(i) A narrative description of how the CCR unit will be closed in accordance with this section.

(ii) If closure of the CCR unit will be accomplished through removal of CCR from the CCR unit, a description of the procedures to remove the CCR and decontaminate the CCR unit in accordance with paragraph (c) of this section.

(iii) If closure of the CCR unit will be accomplished by leaving CCR in place, a description of the final cover system, designed in accordance with paragraph (d) of this section, and the methods and procedures to be used to install the final cover. The closure plan must also discuss how the final cover system will achieve the performance standards specified in paragraph (d) of this section.

(iv) An estimate of the maximum inventory of CCR ever on-site over the active life of the CCR unit.

(v) An estimate of the largest area of the CCR unit ever requiring a final cover as required by paragraph (d) of this section at any time during the CCR unit's active life.

(vi) A schedule for completing all activities necessary to satisfy the closure criteria in this section, including an estimate of the year in which all closure activities for the CCR unit will be completed. The schedule should provide sufficient information to describe the sequential steps that will be taken to close the CCR unit, including identification of major milestones such as coordinating with and obtaining necessary approvals and permits from other agencies, the dewatering and stabilization phases of CCR surface impoundment closure, or installation of the final cover system, and the estimated timeframes to complete each step or phase of CCR unit closure. When preparing the written closure plan, if the

owner or operator of a CCR unit estimates that the time required to complete closure will exceed the timeframes specified in paragraph (f)(1) of this section, the written closure plan must include the site-specific information, factors and considerations that would support any time extension sought under paragraph (f)(2) of this section.

(2) *Timeframes for preparing the initial written closure plan*—(i) *Existing CCR landfills and existing CCR surface impoundments.* No later than October 17, 2016, the owner or operator of the CCR unit must prepare an initial written closure plan consistent with the requirements specified in paragraph (b)(1) of this section.

(ii) *New CCR landfills and new CCR surface impoundments, and any lateral expansion of a CCR unit.* No later than the date of the initial receipt of CCR in the CCR unit, the owner or operator must prepare an initial written closure plan consistent with the requirements specified in paragraph (b)(1) of this section.

(iii) The owner or operator has completed the written closure plan when the plan, including the certification required by paragraph (b)(4) of this section, has been placed in the facility's operating record as required by § 257.105(i)(4).

(3) *Amendment of a written closure plan.* (i) The owner or operator may amend the initial or any subsequent written closure plan developed pursuant to paragraph (b)(1) of this section at any time.

(ii) The owner or operator must amend the written closure plan whenever:

(A) There is a change in the operation of the CCR unit that would substantially affect the written closure plan in effect; or

(B) Before or after closure activities have commenced, unanticipated events necessitate a revision of the written closure plan.

(iii) The owner or operator must amend the closure plan at least 60 days prior to a planned change in the operation of the facility or CCR unit, or no later than 60 days after an unanticipated event requires the need to revise an existing written closure plan. If a written closure plan is revised after closure activities have commenced for a CCR unit, the owner or operator must amend the current closure plan no later than 30 days following the triggering event.

(4) The owner or operator of the CCR unit must obtain a written certification from a qualified professional engineer that the initial and any amendment of

the written closure plan meets the requirements of this section.

(c) *Closure by removal of CCR.* An owner or operator may elect to close a CCR unit by removing and decontaminating all areas affected by releases from the CCR unit. CCR removal and decontamination of the CCR unit are complete when constituent concentrations throughout the CCR unit and any areas affected by releases from the CCR unit have been removed and groundwater monitoring concentrations do not exceed the groundwater protection standard established pursuant to § 257.95(h) for constituents listed in appendix IV to this part.

(d) *Closure performance standard when leaving CCR in place*—(1) The owner or operator of a CCR unit must ensure that, at a minimum, the CCR unit is closed in a manner that will:

(i) Control, minimize or eliminate, to the maximum extent feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere;

(ii) Preclude the probability of future impoundment of water, sediment, or slurry;

(iii) Include measures that provide for major slope stability to prevent the sloughing or movement of the final cover system during the closure and post-closure care period;

(iv) Minimize the need for further maintenance of the CCR unit; and

(v) Be completed in the shortest amount of time consistent with recognized and generally accepted good engineering practices.

(2) *Drainage and stabilization of CCR surface impoundments.* The owner or operator of a CCR surface impoundment or any lateral expansion of a CCR surface impoundment must meet the requirements of paragraphs (d)(2)(i) and (ii) of this section prior to installing the final cover system required under paragraph (d)(3) of this section.

(i) Free liquids must be eliminated by removing liquid wastes or solidifying the remaining wastes and waste residues.

(ii) Remaining wastes must be stabilized sufficient to support the final cover system.

(3) *Final cover system.* If a CCR unit is closed by leaving CCR in place, the owner or operator must install a final cover system that is designed to minimize infiltration and erosion, and at a minimum, meets the requirements of paragraph (d)(3)(i) of this section, or the requirements of the alternative final cover system specified in paragraph (d)(3)(ii) of this section.

(i) The final cover system must be designed and constructed to meet the criteria in paragraphs (d)(3)(i)(A) through (D) of this section. The design of the final cover system must be included in the written closure plan required by paragraph (b) of this section.

(A) The permeability of the final cover system must be less than or equal to the permeability of any bottom liner system or natural subsoils present, or a permeability no greater than 1×10^{-5} cm/sec, whichever is less.

(B) The infiltration of liquids through the closed CCR unit must be minimized by the use of an infiltration layer that contains a minimum of 18 inches of earthen material.

(C) The erosion of the final cover system must be minimized by the use of an erosion layer that contains a minimum of six inches of earthen material that is capable of sustaining native plant growth.

(D) The disruption of the integrity of the final cover system must be minimized through a design that accommodates settling and subsidence.

(ii) The owner or operator may select an alternative final cover system design, provided the alternative final cover system is designed and constructed to meet the criteria in paragraphs (f)(3)(ii)(A) through (D) of this section. The design of the final cover system must be included in the written closure plan required by paragraph (b) of this section.

(A) The design of the final cover system must include an infiltration layer that achieves an equivalent reduction in infiltration as the infiltration layer specified in paragraphs (d)(3)(i)(A) and (B) of this section.

(B) The design of the final cover system must include an erosion layer that provides equivalent protection from wind or water erosion as the erosion layer specified in paragraph (d)(3)(i)(C) of this section.

(C) The disruption of the integrity of the final cover system must be minimized through a design that accommodates settling and subsidence.

(iii) The owner or operator of the CCR unit must obtain a written certification from a qualified professional engineer that the design of the final cover system meets the requirements of this section.

(e) *Initiation of closure activities.* Except as provided for in paragraph (e)(4) of this section and § 257.103, the owner or operator of a CCR unit must commence closure of the CCR unit no later than the applicable timeframes specified in either paragraph (e)(1) or (2) of this section.

(1) The owner or operator must commence closure of the CCR unit no

later than 30 days after the date on which the CCR unit either:

(i) Receives the known final receipt of waste, either CCR or any non-CCR waste stream; or

(ii) Removes the known final volume of CCR from the CCR unit for the purpose of beneficial use of CCR.

(2)(i) Except as provided by paragraph (e)(2)(ii) of this section, the owner or operator must commence closure of a CCR unit that has not received CCR or any non-CCR waste stream or is no longer removing CCR for the purpose of beneficial use within two years of the last receipt of waste or within two years of the last removal of CCR material for the purpose of beneficial use.

(ii) Notwithstanding paragraph (e)(2)(i) of this section, the owner or operator of the CCR unit may secure an additional two years to initiate closure of the idle unit provided the owner or operator provides written documentation that the CCR unit will continue to accept wastes or will start removing CCR for the purpose of beneficial use. The documentation must be supported by, at a minimum, the information specified in paragraphs (e)(2)(ii)(A) and (B) of this section. The owner or operator may obtain two-year extensions provided the owner or operator continues to be able to demonstrate that there is reasonable likelihood that the CCR unit will accept wastes in the foreseeable future or will remove CCR from the unit for the purpose of beneficial use. The owner or operator must place each completed demonstration, if more than one time extension is sought, in the facility's operating record as required by § 257.105(i)(5) prior to the end of any two-year period.

(A) Information documenting that the CCR unit has remaining storage or disposal capacity or that the CCR unit can have CCR removed for the purpose of beneficial use; and

(B) Information demonstrating that there is a reasonable likelihood that the CCR unit will resume receiving CCR or non-CCR waste streams in the foreseeable future or that CCR can be removed for the purpose of beneficial use. The narrative must include a best estimate as to when the CCR unit will resume receiving CCR or non-CCR waste streams. The situations listed in paragraphs (e)(2)(ii)(B)(1) through (4) of this section are examples of situations that would support a determination that the CCR unit will resume receiving CCR or non-CCR waste streams in the foreseeable future.

(1) Normal plant operations include periods during which the CCR unit does not receive CCR or non-CCR waste

streams, such as the alternating use of two or more CCR units whereby at any point in time one CCR unit is receiving CCR while CCR is being removed from a second CCR unit after its dewatering.

(2) The CCR unit is dedicated to a coal-fired boiler unit that is temporarily idled (e.g., CCR is not being generated) and there is a reasonable likelihood that the coal-fired boiler will resume operations in the future.

(3) The CCR unit is dedicated to an operating coal-fired boiler (i.e., CCR is being generated); however, no CCR are being placed in the CCR unit because the CCR are being entirely diverted to beneficial uses, but there is a reasonable likelihood that the CCR unit will again be used in the foreseeable future.

(4) The CCR unit currently receives only non-CCR waste streams and those non-CCR waste streams are not generated for an extended period of time, but there is a reasonable likelihood that the CCR unit will again receive non-CCR waste streams in the future.

(iii) In order to obtain additional time extension(s) to initiate closure of a CCR unit beyond the two years provided by paragraph (e)(2)(i) of this section, the owner or operator of the CCR unit must include with the demonstration required by paragraph (e)(2)(ii) of this section the following statement signed by the owner or operator or an authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(3) For purposes of this subpart, closure of the CCR unit has commenced if the owner or operator has ceased placing waste and completes any of the following actions or activities:

(i) Taken any steps necessary to implement the written closure plan required by paragraph (b) of this section;

(ii) Submitted a completed application for any required state or agency permit or permit modification; or

(iii) Taken any steps necessary to comply with any state or other agency standards that are a prerequisite, or are otherwise applicable, to initiating or completing the closure of a CCR unit.

(4) The timeframes specified in paragraphs (e)(1) and (2) of this section do not apply to any of the following owners or operators:

(i) An owner or operator of an inactive CCR surface impoundment closing the CCR unit as required by § 257.100(b);

(ii) An owner or operator of an existing unlined CCR surface impoundment closing the CCR unit as required by § 257.101(a);

(iii) An owner or operator of an existing CCR surface impoundment closing the CCR unit as required by § 257.101(b);

(iv) An owner or operator of a new CCR surface impoundment closing the CCR unit as required by § 257.101(c); or

(v) An owner or operator of an existing CCR landfill closing the CCR unit as required by § 257.101(d).

(f) *Completion of closure activities.* (1) Except as provided for in paragraph (f)(2) of this section, the owner or operator must complete closure of the CCR unit:

(i) For existing and new CCR landfills and any lateral expansion of a CCR landfill, within six months of commencing closure activities.

(ii) For existing and new CCR surface impoundments and any lateral expansion of a CCR surface impoundment, within five years of commencing closure activities.

(2)(i) *Extensions of closure timeframes.* The timeframes for completing closure of a CCR unit specified under paragraphs (f)(1) of this section may be extended if the owner or operator can demonstrate that it was not feasible to complete closure of the CCR unit within the required timeframes due to factors beyond the facility's control.

If the owner or operator is seeking a time extension beyond the time specified in the written closure plan as required by paragraph (b)(1) of this section, the demonstration must include a narrative discussion providing the basis for additional time beyond that specified in the closure plan. The owner or operator must place each completed demonstration, if more than one time extension is sought, in the facility's operating record as required by § 257.105(i)(6) prior to the end of any two-year period. Factors that may support such a demonstration include:

(A) Complications stemming from the climate and weather, such as unusual amounts of precipitation or a significantly shortened construction season;

(B) Time required to dewater a surface impoundment due to the volume of CCR contained in the CCR unit or the characteristics of the CCR in the unit;

(C) The geology and terrain surrounding the CCR unit will affect the amount of material needed to close the CCR unit; or

(D) Time required or delays caused by the need to coordinate with and obtain necessary approvals and permits from a state or other agency.

(ii) *Maximum time extensions.* (A) CCR surface impoundments of 40 acres or smaller may extend the time to complete closure by no longer than two years.

(B) CCR surface impoundments larger than 40 acres may extend the timeframe to complete closure of the CCR unit multiple times, in two-year increments. For each two-year extension sought, the owner or operator must substantiate the factual circumstances demonstrating the need for the extension. No more than a total of five two-year extensions may be obtained for any CCR surface impoundment.

(C) CCR landfills may extend the timeframe to complete closure of the CCR unit multiple times, in one-year increments. For each one-year extension sought, the owner or operator must substantiate the factual circumstances demonstrating the need for the extension. No more than a total of two one-year extensions may be obtained for any CCR landfill.

(iii) In order to obtain additional time extension(s) to complete closure of a CCR unit beyond the times provided by paragraph (f)(1) of this section, the owner or operator of the CCR unit must include with the demonstration required by paragraph (f)(2)(i) of this section the following statement signed by the owner or operator or an authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(3) Upon completion, the owner or operator of the CCR unit must obtain a certification from a qualified professional engineer verifying that closure has been completed in accordance with the closure plan specified in paragraph (b) of this section and the requirements of this section.

(g) No later than the date the owner or operator initiates closure of a CCR unit, the owner or operator must prepare a notification of intent to close a CCR unit. The notification must include the certification by a qualified professional engineer for the design of the final cover system as required by § 257.102(d)(3)(iii), if applicable. The

owner or operator has completed the notification when it has been placed in the facility's operating record as required by § 257.105(i)(7).

(h) Within 30 days of completion of closure of the CCR unit, the owner or operator must prepare a notification of closure of a CCR unit. The notification must include the certification by a qualified professional engineer as required by § 257.102(f)(3). The owner or operator has completed the notification when it has been placed in the facility's operating record as required by § 257.105(i)(8).

(i) *Deed notations.* (1) Except as provided by paragraph (i)(4) of this section, following closure of a CCR unit, the owner or operator must record a notation on the deed to the property, or some other instrument that is normally examined during title search.

(2) The notation on the deed must in perpetuity notify any potential purchaser of the property that:

(i) The land has been used as a CCR unit; and

(ii) Its use is restricted under the post-closure care requirements as provided by § 257.104(d)(1)(iii).

(3) Within 30 days of recording a notation on the deed to the property, the owner or operator must prepare a notification stating that the notation has been recorded. The owner or operator has completed the notification when it has been placed in the facility's operating record as required by § 257.105(i)(9).

(4) An owner or operator that closes a CCR unit in accordance with paragraph (c) of this section is not subject to the requirements of paragraphs (i)(1) through (3) of this section.

(j) The owner or operator of the CCR unit must comply with the closure recordkeeping requirements specified in § 257.105(i), the closure notification requirements specified in § 257.106(i), and the closure Internet requirements specified in § 257.107(i).

(k) *Criteria to retrofit an existing CCR surface impoundment.* (1) To retrofit an existing CCR surface impoundment, the owner or operator must:

(i) First remove all CCR, including any contaminated soils and sediments from the CCR unit; and

(ii) Comply with the requirements in § 257.72.

(iii) A CCR surface impoundment undergoing a retrofit remains subject to all other requirements of this subpart, including the requirement to conduct any necessary corrective action.

(2) *Written retrofit plan*—(i) *Content of the plan.* The owner or operator must prepare a written retrofit plan that

describes the steps necessary to retrofit the CCR unit consistent with recognized and generally accepted good engineering practices. The written retrofit plan must include, at a minimum, all of the following information:

(A) A narrative description of the specific measures that will be taken to retrofit the CCR unit in accordance with this section.

(B) A description of the procedures to remove all CCR and contaminated soils and sediments from the CCR unit.

(C) An estimate of the maximum amount of CCR that will be removed as part of the retrofit operation.

(D) An estimate of the largest area of the CCR unit that will be affected by the retrofit operation.

(E) A schedule for completing all activities necessary to satisfy the retrofit criteria in this section, including an estimate of the year in which retrofit activities of the CCR unit will be completed.

(ii) *Timeframes for preparing the initial written retrofit plan.* (A) No later than 60 days prior to date of initiating retrofit activities, the owner or operator must prepare an initial written retrofit plan consistent with the requirements specified in paragraph (k)(2) of this section. For purposes of this subpart, initiation of retrofit activities has commenced if the owner or operator has ceased placing waste in the unit and completes any of the following actions or activities:

(1) Taken any steps necessary to implement the written retrofit plan;

(2) Submitted a completed application for any required state or agency permit or permit modification; or

(3) Taken any steps necessary to comply with any state or other agency standards that are a prerequisite, or are otherwise applicable, to initiating or completing the retrofit of a CCR unit.

(B) The owner or operator has completed the written retrofit plan when the plan, including the certification required by paragraph (k)(2)(iv) of this section, has been placed in the facility's operating record as required by § 257.105(j)(1).

(iii) *Amendment of a written retrofit plan.* (A) The owner or operator may amend the initial or any subsequent written retrofit plan at any time.

(B) The owner or operator must amend the written retrofit plan whenever:

(1) There is a change in the operation of the CCR unit that would substantially affect the written retrofit plan in effect; or

(2) Before or after retrofit activities have commenced, unanticipated events

necessitate a revision of the written retrofit plan.

(C) The owner or operator must amend the retrofit plan at least 60 days prior to a planned change in the operation of the facility or CCR unit, or no later than 60 days after an unanticipated event requires the revision of an existing written retrofit plan. If a written retrofit plan is revised after retrofit activities have commenced for a CCR unit, the owner or operator must amend the current retrofit plan no later than 30 days following the triggering event.

(iv) The owner or operator of the CCR unit must obtain a written certification from a qualified professional engineer that the activities outlined in the written retrofit plan, including any amendment of the plan, meet the requirements of this section.

(3) *Deadline for completion of activities related to the retrofit of a CCR unit.* Any CCR surface impoundment that is being retrofitted must complete all retrofit activities within the same time frames and procedures specified for the closure of a CCR surface impoundment in § 257.102(f) or, where applicable, § 257.103.

(4) Upon completion, the owner or operator must obtain a certification from a qualified professional engineer verifying that the retrofit activities have been completed in accordance with the retrofit plan specified in paragraph (k)(2) of this section and the requirements of this section.

(5) No later than the date the owner or operator initiates the retrofit of a CCR unit, the owner or operator must prepare a notification of intent to retrofit a CCR unit. The owner or operator has completed the notification when it has been placed in the facility's operating record as required by § 257.105(j)(5).

(6) Within 30 days of completing the retrofit activities specified in paragraph (k)(1) of this section, the owner or operator must prepare a notification of completion of retrofit activities. The notification must include the certification by a qualified professional engineer as required by paragraph (k)(4) of this section. The owner or operator has completed the notification when it has been placed in the facility's operating record as required by § 257.105(j)(6).

(7) At any time after the initiation of a CCR unit retrofit, the owner or operator may cease the retrofit and initiate closure of the CCR unit in accordance with the requirements of § 257.102.

(8) The owner or operator of the CCR unit must comply with the retrofit recordkeeping requirements specified in

§ 257.105(j), the retrofit notification requirements specified in § 257.106(j), and the retrofit Internet requirements specified in § 257.107(j).

§ 257.103 Alternative closure requirements.

The owner or operator of a CCR landfill, CCR surface impoundment, or any lateral expansion of a CCR unit that is subject to closure pursuant to § 257.101(a), (b)(1), or (d) may continue to receive CCR in the unit provided the owner or operator meets the requirements of either paragraph (a) or (b) of this section.

(a)(1) *No alternative CCR disposal capacity.* Notwithstanding the provisions of § 257.101(a), (b)(1), or (d), a CCR unit may continue to receive CCR if the owner or operator of the CCR unit certifies that the CCR must continue to be managed in that CCR unit due to the absence of alternative disposal capacity both on-site and off-site of the facility. To qualify under this paragraph (a)(1), the owner or operator of the CCR unit must document that all of the following conditions have been met:

(i) No alternative disposal capacity is available on-site or off-site. An increase in costs or the inconvenience of existing capacity is not sufficient to support qualification under this section;

(ii) The owner or operator has made, and continues to make, efforts to obtain additional capacity. Qualification under this subsection lasts only as long as no alternative capacity is available. Once alternative capacity is identified, the owner or operator must arrange to use such capacity as soon as feasible;

(iii) The owner or operator must remain in compliance with all other requirements of this subpart, including the requirement to conduct any necessary corrective action; and

(iv) The owner or operator must prepare an annual progress report documenting the continued lack of alternative capacity and the progress towards the development of alternative CCR disposal capacity.

(2) Once alternative capacity is available, the CCR unit must cease receiving CCR and initiate closure following the timeframes in § 257.102(e) and (f).

(3) If no alternative capacity is identified within five years after the initial certification, the CCR unit must cease receiving CCR and close in accordance with the timeframes in § 257.102(e) and (f).

(b)(1) *Permanent cessation of a coal-fired boiler(s) by a date certain.* Notwithstanding the provisions of § 257.101(a), (b)(1), and (d), a CCR unit may continue to receive CCR if the

owner or operator certifies that the facility will cease operation of the coal-fired boilers within the timeframes specified in paragraphs (b)(2) through (4) of this section, but in the interim period (prior to closure of the coal-fired boiler), the facility must continue to use the CCR unit due to the absence of alternative disposal capacity both on-site and off-site of the facility. To qualify under this paragraph (b)(1), the owner or operator of the CCR unit must document that all of the following conditions have been met:

(i) No alternative disposal capacity is available on-site or off-site. An increase in costs or the inconvenience of existing capacity is not sufficient to support qualification under this section.

(ii) The owner or operator must remain in compliance with all other requirements of this subpart, including the requirement to conduct any necessary corrective action; and

(iii) The owner or operator must prepare an annual progress report documenting the continued lack of alternative capacity and the progress towards the closure of the coal-fired boiler.

(2) For a CCR surface impoundment that is 40 acres or smaller, the coal-fired boiler must cease operation and the CCR surface impoundment must have completed closure no later than October 17, 2023.

(3) For a CCR surface impoundment that is larger than 40 acres, the coal-fired boiler must cease operation, and the CCR surface impoundment must complete closure no later than October 17, 2028.

(4) For a CCR landfill, the coal-fired boiler must cease operation, and the CCR landfill must complete closure no later than April 19, 2021.

(c) Required notices and progress reports. An owner or operator of a CCR unit that closes in accordance with paragraphs (a) or (b) of this section must complete the notices and progress reports specified in paragraphs (c)(1) through (3) of this section.

(1) Within six months of becoming subject to closure pursuant to § 257.101(a), (b)(1), or (d), the owner or operator must prepare and place in the facility's operating record a notification of intent to comply with the alternative closure requirements of this section. The notification must describe why the CCR unit qualifies for the alternative closure provisions under either paragraph (a) or (b) of this section, in addition to providing the documentation and certifications required by paragraph (a) or (b) of this section.

(2) The owner or operator must prepare the periodic progress reports required by paragraphs (a)(1)(iv) or (b)(1)(iii), in addition to describing any problems encountered and a description of the actions taken to resolve the problems. The annual progress reports must be completed according to the following schedule:

(i) The first annual progress report must be prepared no later than 13 months after completing the notification of intent to comply with the alternative closure requirements required by paragraph (c)(1) of this section.

(ii) The second annual progress report must be prepared no later than 12 months after completing the first annual progress report. Additional annual progress reports must be prepared within 12 months of completing the previous annual progress report.

(iii) The owner or operator has completed the progress reports specified in paragraph (c)(2) of this section when the reports are placed in the facility's operating record as required by § 257.105(i)(10).

(3) An owner or operator of a CCR unit must also prepare the notification of intent to close a CCR unit as required by § 257.102(g).

(d) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(i), the notification requirements specified in § 257.106(i), and the Internet requirements specified in § 257.107(i).

§ 257.104 Post-closure care requirements.

(a) *Applicability.* (1) Except as provided by either paragraph (a)(2) or (3) of this section, § 257.104 applies to the owners or operators of CCR landfills, CCR surface impoundments, and all lateral expansions of CCR units that are subject to the closure criteria under § 257.102.

(2) An owner or operator of a CCR unit that elects to close a CCR unit by removing CCR as provided by § 257.102(c) is not subject to the post-closure care criteria under this section.

(3) An owner or operator of an inactive CCR surface impoundment that elects to close a CCR unit pursuant to the requirements under § 257.100(b) is not subject to the post-closure care criteria under this section.

(b) *Post-closure care maintenance requirements.* Following closure of the CCR unit, the owner or operator must conduct post-closure care for the CCR unit, which must consist of at least the following:

(1) Maintaining the integrity and effectiveness of the final cover system, including making repairs to the final

cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;

(2) If the CCR unit is subject to the design criteria under § 257.70, maintaining the integrity and effectiveness of the leachate collection and removal system and operating the leachate collection and removal system in accordance with the requirements of § 257.70; and

(3) Maintaining the groundwater monitoring system and monitoring the groundwater in accordance with the requirements of §§ 257.90 through 257.98.

(c) *Post-closure care period.* (1) Except as provided by paragraph (c)(2) of this section, the owner or operator of the CCR unit must conduct post-closure care for 30 years.

(2) If at the end of the post-closure care period the owner or operator of the CCR unit is operating under assessment monitoring in accordance with § 257.95, the owner or operator must continue to conduct post-closure care until the owner or operator returns to detection monitoring in accordance with § 257.95.

(d) *Written post-closure plan*—(1) *Content of the plan.* The owner or operator of a CCR unit must prepare a written post-closure plan that includes, at a minimum, the information specified in paragraphs (d)(1)(i) through (iii) of this section.

(i) A description of the monitoring and maintenance activities required in paragraph (b) of this section for the CCR unit, and the frequency at which these activities will be performed;

(ii) The name, address, telephone number, and email address of the person or office to contact about the facility during the post-closure care period; and

(iii) A description of the planned uses of the property during the post-closure period. Post-closure use of the property shall not disturb the integrity of the final cover, liner(s), or any other component of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements in this subpart. Any other disturbance is allowed if the owner or operator of the CCR unit demonstrates that disturbance of the final cover, liner, or other component of the containment system, including any removal of CCR, will not increase the potential threat to human health or the environment. The demonstration must be certified by a qualified professional engineer, and notification shall be provided to the State Director that the demonstration has been placed in the

operating record and on the owners or operator's publicly accessible Internet site.

(2) *Deadline to prepare the initial written post-closure plan*—(i) *Existing CCR landfills and existing CCR surface impoundments.* No later than October 17, 2016, the owner or operator of the CCR unit must prepare an initial written post-closure plan consistent with the requirements specified in paragraph (d)(1) of this section.

(ii) *New CCR landfills, new CCR surface impoundments, and any lateral expansion of a CCR unit.* No later than the date of the initial receipt of CCR in the CCR unit, the owner or operator must prepare an initial written post-closure plan consistent with the requirements specified in paragraph (d)(1) of this section.

(iii) The owner or operator has completed the written post-closure plan when the plan, including the certification required by paragraph (d)(4) of this section, has been placed in the facility's operating record as required by § 257.105(i)(4).

(3) *Amendment of a written post-closure plan.* (i) The owner or operator may amend the initial or any subsequent written post-closure plan developed pursuant to paragraph (d)(1) of this section at any time.

(ii) The owner or operator must amend the written closure plan whenever:

(A) There is a change in the operation of the CCR unit that would substantially affect the written post-closure plan in effect; or

(B) After post-closure activities have commenced, unanticipated events necessitate a revision of the written post-closure plan.

(iii) The owner or operator must amend the written post-closure plan at least 60 days prior to a planned change in the operation of the facility or CCR unit, or no later than 60 days after an unanticipated event requires the need to revise an existing written post-closure plan. If a written post-closure plan is revised after post-closure activities have commenced for a CCR unit, the owner or operator must amend the written post-closure plan no later than 30 days following the triggering event.

(4) The owner or operator of the CCR unit must obtain a written certification from a qualified professional engineer that the initial and any amendment of the written post-closure plan meets the requirements of this section.

(e) *Notification of completion of post-closure care period.* No later than 60 days following the completion of the post-closure care period, the owner or operator of the CCR unit must prepare

a notification verifying that post-closure care has been completed. The notification must include the certification by a qualified professional engineer verifying that post-closure care has been completed in accordance with the closure plan specified in paragraph (d) of this section and the requirements of this section. The owner or operator has completed the notification when it has been placed in the facility's operating record as required by § 257.105(i)(13).

(f) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in § 257.105(i), the notification requirements specified in § 257.106(i), and the Internet requirements specified in § 257.107(i).

Recordkeeping, Notification, and Posting of Information to the Internet

§ 257.105 Recordkeeping requirements.

(a) Each owner or operator of a CCR unit subject to the requirements of this subpart must maintain files of all information required by this section in a written operating record at their facility.

(b) Unless specified otherwise, each file must be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, record, or study.

(c) An owner or operator of more than one CCR unit subject to the provisions of this subpart may comply with the requirements of this section in one recordkeeping system provided the system identifies each file by the name of each CCR unit. The files may be maintained on microfilm, on a computer, on computer disks, on a storage system accessible by a computer, on magnetic tape disks, or on microfiche.

(d) The owner or operator of a CCR unit must submit to the State Director and/or appropriate Tribal authority any demonstration or documentation required by this subpart, if requested, when such information is not otherwise available on the owner or operator's publicly accessible Internet site.

(e) *Location restrictions.* The owner or operator of a CCR unit subject to this subpart must place the demonstrations documenting whether or not the CCR unit is in compliance with the requirements under §§ 257.60(a), 257.61(a), 257.62(a), 257.63(a), and 257.64(a), as it becomes available, in the facility's operating record.

(f) *Design criteria.* The owner or operator of a CCR unit subject to this subpart must place the following

information, as it becomes available, in the facility's operating record:

(1) The design and construction certifications as required by § 257.70(e) and (f).

(2) The documentation of liner type as required by § 257.71(a).

(3) The design and construction certifications as required by § 257.72(c) and (d).

(4) Documentation prepared by the owner or operator stating that the permanent identification marker was installed as required by §§ 257.73(a)(1) and 257.74(a)(1).

(5) The initial and periodic hazard potential classification assessments as required by §§ 257.73(a)(2) and 257.74(a)(2).

(6) The emergency action plan (EAP), and any amendment of the EAP, as required by §§ 257.73(a)(3) and 257.74(a)(3), except that only the most recent EAP must be maintained in the facility's operating record irrespective of the time requirement specified in paragraph (b) of this section.

(7) Documentation prepared by the owner or operator recording the annual face-to-face meeting or exercise between representatives of the owner or operator of the CCR unit and the local emergency responders as required by §§ 257.73(a)(3)(i)(E) and 257.74(a)(3)(i)(E).

(8) Documentation prepared by the owner or operator recording all activations of the emergency action plan as required by §§ 257.73(a)(3)(v) and 257.74(a)(3)(v).

(9) The history of construction, and any revisions of it, as required by § 257.73(c), except that these files must be maintained until the CCR unit completes closure of the unit in accordance with § 257.102.

(10) The initial and periodic structural stability assessments as required by §§ 257.73(d) and 257.74(d).

(11) Documentation detailing the corrective measures taken to remedy the deficiency or release as required by §§ 257.73(d)(2) and 257.74(d)(2).

(12) The initial and periodic safety factor assessments as required by §§ 257.73(e) and 257.74(e).

(13) The design and construction plans, and any revisions of it, as required by § 257.74(c), except that these files must be maintained until the CCR unit completes closure of the unit in accordance with § 257.102.

(g) *Operating criteria.* The owner or operator of a CCR unit subject to this subpart must place the following information, as it becomes available, in the facility's operating record:

(1) The CCR fugitive dust control plan, and any subsequent amendment of

the plan, required by § 257.80(b), except that only the most recent control plan must be maintained in the facility's operating record irrespective of the time requirement specified in paragraph (b) of this section.

(2) The annual CCR fugitive dust control report required by § 257.80(c).

(3) The initial and periodic run-on and run-off control system plans as required by § 257.81(c).

(4) The initial and periodic inflow design flood control system plan as required by § 257.82(c).

(5) Documentation recording the results of each inspection and instrumentation monitoring by a qualified person as required by § 257.83(a).

(6) The periodic inspection report as required by § 257.83(b)(2).

(7) Documentation detailing the corrective measures taken to remedy the deficiency or release as required by §§ 257.83(b)(5) and 257.84(b)(5).

(8) Documentation recording the results of the weekly inspection by a qualified person as required by § 257.84(a).

(9) The periodic inspection report as required by § 257.84(b)(2).

(h) *Groundwater monitoring and corrective action.* The owner or operator of a CCR unit subject to this subpart must place the following information, as it becomes available, in the facility's operating record:

(1) The annual groundwater monitoring and corrective action report as required by § 257.90(e).

(2) Documentation of the design, installation, development, and decommissioning of any monitoring wells, piezometers and other measurement, sampling, and analytical devices as required by § 257.91(e)(1).

(3) The groundwater monitoring system certification as required by § 257.91(f).

(4) The selection of a statistical method certification as required by § 257.93(f)(6).

(5) Within 30 days of establishing an assessment monitoring program, the notification as required by § 257.94(e)(3).

(6) The results of appendices III and IV to this part constituent concentrations as required by § 257.95(d)(1).

(7) Within 30 days of returning to a detection monitoring program, the notification as required by § 257.95(e).

(8) Within 30 days of detecting one or more constituents in appendix IV to this part at statistically significant levels above the groundwater protection standard, the notifications as required by § 257.95(g).

(9) Within 30 days of initiating the assessment of corrective measures requirements, the notification as required by § 257.95(g)(5).

(10) The completed assessment of corrective measures as required by § 257.96(d).

(11) Documentation prepared by the owner or operator recording the public meeting for the corrective measures assessment as required by § 257.96(e).

(12) The semiannual report describing the progress in selecting and designing the remedy and the selection of remedy report as required by § 257.97(a), except that the selection of remedy report must be maintained until the remedy has been completed.

(13) Within 30 days of completing the remedy, the notification as required by § 257.98(e).

(i) *Closure and post-closure care.* The owner or operator of a CCR unit subject to this subpart must place the following information, as it becomes available, in the facility's operating record:

(1) The notification of intent to initiate closure of the CCR unit as required by § 257.100(c)(1).

(2) The annual progress reports of closure implementation as required by § 257.100(c)(2)(i) and (ii).

(3) The notification of closure completion as required by § 257.100(c)(3).

(4) The written closure plan, and any amendment of the plan, as required by § 257.102(b), except that only the most recent closure plan must be maintained in the facility's operating record irrespective of the time requirement specified in paragraph (b) of this section.

(5) The written demonstration(s), including the certification required by § 257.102(e)(2)(iii), for a time extension for initiating closure as required by § 257.102(e)(2)(ii).

(6) The written demonstration(s), including the certification required by § 257.102(f)(2)(iii), for a time extension for completing closure as required by § 257.102(f)(2)(i).

(7) The notification of intent to close a CCR unit as required by § 257.102(g).

(8) The notification of completion of closure of a CCR unit as required by § 257.102(h).

(9) The notification recording a notation on the deed as required by § 257.102(i).

(10) The notification of intent to comply with the alternative closure requirements as required by § 257.103(c)(1).

(11) The annual progress reports under the alternative closure requirements as required by § 257.103(c)(2).

(12) The written post-closure plan, and any amendment of the plan, as required by § 257.104(d), except that only the most recent closure plan must be maintained in the facility's operating record irrespective of the time requirement specified in paragraph (b) of this section.

(13) The notification of completion of post-closure care period as required by § 257.104(e).

(j) *Retrofit criteria.* The owner or operator of a CCR unit subject to this subpart must place the following information, as it becomes available, in the facility's operating record:

(1) The written retrofit plan, and any amendment of the plan, as required by § 257.102(k)(2), except that only the most recent retrofit plan must be maintained in the facility's operating record irrespective of the time requirement specified in paragraph (b) of this section.

(2) The notification of intent that the retrofit activities will proceed in accordance with the alternative procedures in § 257.103.

(3) The annual progress reports required under the alternative requirements as required by § 257.103.

(4) The written demonstration(s), including the certification in § 257.102(f)(2)(iii), for a time extension for completing retrofit activities as required by § 257.102(k)(3).

(5) The notification of intent to initiate retrofit of a CCR unit as required by § 257.102(k)(5).

(6) The notification of completion of retrofit activities as required by § 257.102(k)(6).

§ 257.106 Notification requirements.

(a) The notifications required under paragraphs (e) through (i) of this section must be sent to the relevant State Director and/or appropriate Tribal authority before the close of business on the day the notification is required to be completed. For purposes of this section, *before the close of business* means the notification must be postmarked or sent by electronic mail (email). If a notification deadline falls on a weekend or federal holiday, the notification deadline is automatically extended to the next business day.

(b) If any CCR unit is located in its entirety within Indian Country, the notifications of this section must be sent to the appropriate Tribal authority. If any CCR unit is located in part within Indian Country, the notifications of this section must be sent both to the appropriate State Director and Tribal authority.

(c) Notifications may be combined as long as the deadline requirement for each notification is met.

(d) Unless otherwise required in this section, the notifications specified in this section must be sent to the State Director and/or appropriate Tribal authority within 30 days of placing in the operating record the information required by § 257.105.

(e) *Location restrictions.* The owner or operator of a CCR unit subject to the requirements of this subpart must notify the State Director and/or appropriate Tribal authority that each demonstration specified under § 257.105(e) has been placed in the operating record and on the owner or operator's publicly accessible internet site.

(f) *Design criteria.* The owner or operator of a CCR unit subject to this subpart must notify the State Director and/or appropriate Tribal authority when information has been placed in the operating record and on the owner or operator's publicly accessible internet site. The owner or operator must:

(1) Within 60 days of commencing construction of a new CCR unit, provide notification of the availability of the design certification specified under § 257.105(f)(1) or (3). If the owner or operator of the CCR unit elects to install an alternative composite liner, the owner or operator must also submit to the State Director and/or appropriate Tribal authority a copy of the alternative composite liner design.

(2) No later than the date of initial receipt of CCR by a new CCR unit, provide notification of the availability of the construction certification specified under § 257.105(f)(1) or (3).

(3) Provide notification of the availability of the documentation of liner type specified under § 257.105(f)(2).

(4) Provide notification of the availability of the initial and periodic hazard potential classification assessments specified under § 257.105(f)(5).

(5) Provide notification of the availability of emergency action plan (EAP), and any revisions of the EAP, specified under § 257.105(f)(6).

(6) Provide notification of the availability of documentation prepared by the owner or operator recording the annual face-to-face meeting or exercise between representatives of the owner or operator of the CCR unit and the local emergency responders specified under § 257.105(f)(7).

(7) Provide notification of documentation prepared by the owner or operator recording all activations of the emergency action plan specified under § 257.105(f)(8).

(8) Provide notification of the availability of the history of construction, and any revision of it, specified under § 257.105(f)(9).

(9) Provide notification of the availability of the initial and periodic structural stability assessments specified under § 257.105(f)(10).

(10) Provide notification of the availability of the documentation detailing the corrective measures taken to remedy the deficiency or release specified under § 257.105(f)(11).

(11) Provide notification of the availability of the initial and periodic safety factor assessments specified under § 257.105(f)(12).

(12) Provide notification of the availability of the design and construction plans, and any revision of them, specified under § 257.105(f)(13).

(g) *Operating criteria.* The owner or operator of a CCR unit subject to this subpart must notify the State Director and/or appropriate Tribal authority when information has been placed in the operating record and on the owner or operator's publicly accessible internet site. The owner or operator must:

(1) Provide notification of the availability of the CCR fugitive dust control plan, or any subsequent amendment of the plan, specified under § 257.105(g)(1).

(2) Provide notification of the availability of the annual CCR fugitive dust control report specified under § 257.105(g)(2).

(3) Provide notification of the availability of the initial and periodic run-on and run-off control system plans specified under § 257.105(g)(3).

(4) Provide notification of the availability of the initial and periodic inflow design flood control system plans specified under § 257.105(g)(4).

(5) Provide notification of the availability of the periodic inspection reports specified under § 257.105(g)(6).

(6) Provide notification of the availability of the documentation detailing the corrective measures taken to remedy the deficiency or release specified under § 257.105(g)(7).

(7) Provide notification of the availability of the periodic inspection reports specified under § 257.105(g)(9).

(h) *Groundwater monitoring and corrective action.* The owner or operator of a CCR unit subject to this subpart must notify the State Director and/or appropriate Tribal authority when information has been placed in the operating record and on the owner or operator's publicly accessible internet site. The owner or operator must:

(1) Provide notification of the availability of the annual groundwater

monitoring and corrective action report specified under § 257.105(h)(1).

(2) Provide notification of the availability of the groundwater monitoring system certification specified under § 257.105(h)(3).

(3) Provide notification of the availability of the selection of a statistical method certification specified under § 257.105(h)(4).

(4) Provide notification that an assessment monitoring programs has been established specified under § 257.105(h)(5).

(5) Provide notification that the CCR unit is returning to a detection monitoring program specified under § 257.105(h)(7).

(6) Provide notification that one or more constituents in appendix IV to this part have been detected at statistically significant levels above the groundwater protection standard and the notifications to land owners specified under § 257.105(h)(8).

(7) Provide notification that an assessment of corrective measures has been initiated specified under § 257.105(h)(9).

(8) Provide notification of the availability of assessment of corrective measures specified under § 257.105(h)(10).

(9) Provide notification of the availability of the semiannual report describing the progress in selecting and designing the remedy and the selection of remedy report specified under § 257.105(h)(12).

(10) Provide notification of the completion of the remedy specified under § 257.105(h)(13).

(i) *Closure and post-closure care.* The owner or operator of a CCR unit subject to this subpart must notify the State Director and/or appropriate Tribal authority when information has been placed in the operating record and on the owner or operator's publicly accessible Internet site. The owner or operator must:

(1) Provide notification of the intent to initiate closure of the CCR unit specified under § 257.105(i)(1).

(2) Provide notification of the availability of the annual progress reports of closure implementation specified under § 257.105(i)(2).

(3) Provide notification of closure completion specified under § 257.105(i)(3).

(4) Provide notification of the availability of the written closure plan, and any amendment of the plan, specified under § 257.105(i)(4).

(5) Provide notification of the availability of the demonstration(s) for a time extension for initiating closure specified under § 257.105(i)(5).

(6) Provide notification of the availability of the demonstration(s) for a time extension for completing closure specified under § 257.105(i)(6).

(7) Provide notification of intent to close a CCR unit specified under § 257.105(i)(7).

(8) Provide notification of completion of closure of a CCR unit specified under § 257.105(i)(8).

(9) Provide notification of the deed notation as required by § 257.105(i)(9).

(10) Provide notification of intent to comply with the alternative closure requirements specified under § 257.105(i)(10).

(11) The annual progress reports under the alternative closure requirements as required by § 257.105(i)(11).

(12) Provide notification of the availability of the written post-closure plan, and any amendment of the plan, specified under § 257.105(i)(12).

(13) Provide notification of completion of post-closure care specified under § 257.105(i)(13).

(j) *Retrofit criteria.* The owner or operator of a CCR unit subject to this subpart must notify the State Director and/or appropriate Tribal authority when information has been placed in the operating record and on the owner or operator's publicly accessible Internet site. The owner or operator must:

(1) Provide notification of the availability of the written retrofit plan, and any amendment of the plan, specified under § 257.105(j)(1).

(2) Provide notification of intent to comply with the alternative retrofit requirements specified under § 257.105(j)(2).

(3) The annual progress reports under the alternative retrofit requirements as required by § 257.105(j)(3).

(4) Provide notification of the availability of the demonstration(s) for a time extension for completing retrofit activities specified under § 257.105(j)(4).

(5) Provide notification of intent to initiate retrofit of a CCR unit specified under § 257.105(j)(5).

(6) Provide notification of completion of retrofit activities specified under § 257.105(j)(6).

§ 257.107 Publicly accessible Internet site requirements.

(a) Each owner or operator of a CCR unit subject to the requirements of this subpart must maintain a publicly accessible Internet site (CCR Web site) containing the information specified in this section. The owner or operator's Web site must be titled "CCR Rule Compliance Data and Information."

(b) An owner or operator of more than one CCR unit subject to the provisions

of this subpart may comply with the requirements of this section by using the same Internet site for multiple CCR units provided the CCR Web site clearly delineates information by the name or identification number of each unit.

(c) Unless otherwise required in this section, the information required to be posted to the CCR Web site must be made available to the public for at least five years following the date on which the information was first posted to the CCR Web site.

(d) Unless otherwise required in this section, the information must be posted to the CCR Web site within 30 days of placing the pertinent information required by § 257.105 in the operating record.

(e) *Location restrictions.* The owner or operator of a CCR unit subject to this subpart must place each demonstration specified under § 257.105(e) on the owner or operator's CCR Web site.

(f) *Design criteria.* The owner or operator of a CCR unit subject to this subpart must place the following information on the owner or operator's CCR Web site:

(1) Within 60 days of commencing construction of a new unit, the design certification specified under § 257.105(f)(1) or (3).

(2) No later than the date of initial receipt of CCR by a new CCR unit, the construction certification specified under § 257.105(f)(1) or (3).

(3) The documentation of liner type specified under § 257.105(f)(2).

(4) The initial and periodic hazard potential classification assessments specified under § 257.105(f)(5).

(5) The emergency action plan (EAP) specified under § 257.105(f)(6), except that only the most recent EAP must be maintained on the CCR Web site irrespective of the time requirement specified in paragraph (c) of this section.

(6) Documentation prepared by the owner or operator recording the annual face-to-face meeting or exercise between representatives of the owner or operator of the CCR unit and the local emergency responders specified under § 257.105(f)(7).

(7) Documentation prepared by the owner or operator recording any activation of the emergency action plan specified under § 257.105(f)(8).

(8) The history of construction, and any revisions of it, specified under § 257.105(f)(9).

(9) The initial and periodic structural stability assessments specified under § 257.105(f)(10).

(10) The documentation detailing the corrective measures taken to remedy the

deficiency or release specified under § 257.105(f)(11).

(11) The initial and periodic safety factor assessments specified under § 257.105(f)(12).

(12) The design and construction plans, and any revisions of them, specified under § 257.105(f)(13).

(g) *Operating criteria.* The owner or operator of a CCR unit subject to this subpart must place the following information on the owner or operator's CCR Web site:

(1) The CCR fugitive dust control plan, or any subsequent amendment of the plan, specified under § 257.105(g)(1) except that only the most recent plan must be maintained on the CCR Web site irrespective of the time requirement specified in paragraph (c) of this section.

(2) The annual CCR fugitive dust control report specified under § 257.105(g)(2).

(3) The initial and periodic run-on and run-off control system plans specified under § 257.105(g)(3).

(4) The initial and periodic inflow design flood control system plans specified under § 257.105(g)(4).

(5) The periodic inspection reports specified under § 257.105(g)(6).

(6) The documentation detailing the corrective measures taken to remedy the deficiency or release specified under § 257.105(g)(7).

(7) The periodic inspection reports specified under § 257.105(g)(9).

(h) *Groundwater monitoring and corrective action.* The owner or operator of a CCR unit subject to this subpart must place the following information on the owner or operator's CCR Web site:

(1) The annual groundwater monitoring and corrective action report specified under § 257.105(h)(1).

(2) The groundwater monitoring system certification specified under § 257.105(h)(3).

(3) The selection of a statistical method certification specified under § 257.105(h)(4).

(4) The notification that an assessment monitoring programs has been established specified under § 257.105(h)(5).

(5) The notification that the CCR unit is returning to a detection monitoring program specified under § 257.105(h)(7).

(6) The notification that one or more constituents in appendix IV to this part have been detected at statistically significant levels above the groundwater protection standard and the notifications to land owners specified under § 257.105(h)(8).

(7) The notification that an assessment of corrective measures has been initiated specified under § 257.105(h)(9).

(8) The assessment of corrective measures specified under § 257.105(h)(10).

(9) The semiannual reports describing the progress in selecting and designing remedy and the selection of remedy report specified under § 257.105(h)(12), except that the selection of the remedy report must be maintained until the remedy has been completed.

(10) The notification that the remedy has been completed specified under § 257.105(h)(13).

(i) *Closure and post-closure care.* The owner or operator of a CCR unit subject to this subpart must place the following information on the owner or operator's CCR Web site:

(1) The notification of intent to initiate closure of the CCR unit specified under § 257.105(i)(1).

(2) The annual progress reports of closure implementation specified under § 257.105(i)(2).

(3) The notification of closure completion specified under § 257.105(i)(3).

(4) The written closure plan, and any amendment of the plan, specified under § 257.105(i)(4).

(5) The demonstration(s) for a time extension for initiating closure specified under § 257.105(i)(5).

(6) The demonstration(s) for a time extension for completing closure specified under § 257.105(i)(6).

(7) The notification of intent to close a CCR unit specified under § 257.105(i)(7).

(8) The notification of completion of closure of a CCR unit specified under § 257.105(i)(8).

(9) The notification recording a notation on the deed as required by § 257.105(i)(9).

(10) The notification of intent to comply with the alternative closure requirements as required by § 257.105(i)(10).

(11) The annual progress reports under the alternative closure requirements as required by § 257.105(i)(11).

(12) The written post-closure plan, and any amendment of the plan, specified under § 257.105(i)(12).

(13) The notification of completion of post-closure care specified under § 257.105(i)(13).

(j) *Retrofit criteria.* The owner or operator of a CCR unit subject to this subpart must place the following information on the owner or operator's CCR Web site:

(1) The written retrofit plan, and any amendment of the plan, specified under § 257.105(j)(1).

(2) The notification of intent to comply with the alternative retrofit

requirements as required by § 257.105(j)(2).

(3) The annual progress reports under the alternative retrofit requirements as required by § 257.105(j)(3).

(4) The demonstration(s) for a time extension for completing retrofit activities specified under § 257.105(j)(4).

(5) The notification of intent to retrofit a CCR unit specified under § 257.105(j)(5).

(6) The notification of completion of retrofit activities specified under § 257.105(j)(6).

■ 5. Amend part 257 by adding "Appendix III to Part 257" and "Appendix IV to Part 257" to read as follows:

Appendix III to Part 257—Constituents for Detection Monitoring

Common name ¹
Boron
Calcium
Chloride
Fluoride
pH
Sulfate
Total Dissolved Solids (TDS)

¹ Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

Appendix IV to Part 257—Constituents for Assessment Monitoring

Common name ¹
Antimony
Arsenic
Barium
Beryllium
Cadmium
Chromium
Cobalt
Fluoride
Lead
Lithium
Mercury
Molybdenum
Selenium
Thallium
Radium 226 and 228 combined

¹ Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

■ 6. The authority citation for part 261 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, 6922, 6924(y) and 6938.

■ 7. Section 261.4 is amended by revising paragraph (b)(4) to read as follows:

§ 261.4 Exclusions.

* * * * *

(b) * * *

(4)(i) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels, except as provided by § 266.112 of this chapter for facilities that burn or process hazardous waste.

(ii) The following wastes generated primarily from processes that support the combustion of coal or other fossil fuels that are co-disposed with the wastes in paragraph (b)(4)(i) of this section, except as provided by § 266.112 of this chapter for facilities that burn or process hazardous waste:

(A) *Coal pile run-off*. For purposes of paragraph (b)(4) of this section, coal pile run-off means any precipitation that drains off coal piles.

(B) *Boiler cleaning solutions*. For purposes of paragraph (b)(4) of this section, boiler cleaning solutions means water solutions and chemical solutions

used to clean the fire-side and water-side of the boiler.

(C) *Boiler blowdown*. For purposes of paragraph (b)(4) of this section, boiler blowdown means water purged from boilers used to generate steam.

(D) *Process water treatment and demineralizer regeneration wastes*. For purposes of paragraph (b)(4) of this section, process water treatment and demineralizer regeneration wastes means sludges, rinses, and spent resins generated from processes to remove dissolved gases, suspended solids, and dissolved chemical salts from combustion system process water.

(E) *Cooling tower blowdown*. For purposes of paragraph (b)(4) of this section, cooling tower blowdown means water purged from a closed cycle cooling system. Closed cycle cooling systems include cooling towers, cooling ponds, or spray canals.

(F) *Air heater and precipitator washes*. For purposes of paragraph (b)(4) of this section, air heater and

precipitator washes means wastes from cleaning air preheaters and electrostatic precipitators.

(G) *Effluents from floor and yard drains and sumps*. For purposes of paragraph (b)(4) of this section, effluents from floor and yard drains and sumps means wastewaters, such as wash water, collected by or from floor drains, equipment drains, and sumps located inside the power plant building; and wastewaters, such as rain runoff, collected by yard drains and sumps located outside the power plant building.

(H) *Wastewater treatment sludges*. For purposes of paragraph (b)(4) of this section, wastewater treatment sludges refers to sludges generated from the treatment of wastewaters specified in paragraphs (b)(4)(ii)(A) through (F) of this section.

* * * * *

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Part III

Department of the Interior

Bureau of Safety and Environmental Enforcement

30 CFR Part 250

Oil and Gas and Sulphur Operations in the Outer Continental Shelf—
Blowout Preventer Systems and Well Control; Proposed Rule

DEPARTMENT OF THE INTERIOR**Bureau of Safety and Environmental Enforcement****30 CFR Part 250**[Docket ID: BSEE–2015–0002; 15XE1700DX
EEEE500000 EX1SF0000.DAQ000]

RIN 1014–AA11

Oil and Gas and Sulphur Operations in the Outer Continental Shelf—Blowout Preventer Systems and Well Control**AGENCY:** Bureau of Safety and Environmental Enforcement (BSEE), Interior.**ACTION:** Proposed rule.

SUMMARY: The Bureau of Safety and Environmental Enforcement (BSEE) proposes new regulations in order to consolidate equipment and operational requirements that are common to other subparts pertaining to offshore oil and gas drilling, completions, workovers, and decommissioning. This proposed rule would focus, at this time, on blowout preventer (BOP) requirements, including incorporation of industry standards and revising existing regulations. The proposed rule would also include reforms in the areas of well design, well control, casing, cementing, real-time well monitoring, and subsea containment. The proposed rule would address and implement multiple recommendations resulting from various investigations of the *Deepwater Horizon* incident. This proposed rule would also incorporate guidance from several Notices to Lessees and Operators (NLTs) and revise provisions related to drilling, workover, completion, and decommissioning operations to enhance safety and environmental protection.

DATES: Submit comments by June 16, 2015. The BSEE may not consider comments received after this date. Submit comments to the Office of Management and Budget (OMB) on the information collection burden in this proposed rule by May 18, 2015. This does not affect the deadline for the public to comment to BSEE on the proposed regulations.

ADDRESSES: You may submit comments on the proposed rulemaking by any of the following methods. Please use the Regulation Identifier Number (RIN) 1014–AA11 as an identifier in your message. See also Public Availability of Comments under Procedural Matters.

- Electronic comments: <http://www.regulations.gov>. In the Search box, enter BSEE–2015–0002 then click search. Follow the instructions to submit public comments and view

supporting and related materials available for this rulemaking. We will post all comments.

- Mail or hand-carry comments to the Department of the Interior (DOI); Bureau of Safety and Environmental Enforcement; Attention: Regulations and Standards Branch; 45600 Woodland Road, Sterling, Virginia 20166. Please reference *Blowout Preventer Systems and Well Control, 1014–AA11* in your comments and include your name and return address.

- Send comments on the information collection in this rule to: OMB, Interior Desk Officer 1014–NEW, 202–395–5806 (fax); email: OIRA_submission@omb.eop.gov. Please also send a copy to BSEE at regs@bsee.gov, fax number (703)787–1546, or by the address listed above.

FOR FURTHER INFORMATION CONTACT: Kirk Malstrom, Regulations and Standards Branch, 202–258–1518, Kirk.Malstrom@bsee.gov. To see a copy of the information collection request submitted to OMB, go to <http://www.reginfo.gov> (select Information Collection Review, Currently Under Review).

SUPPLEMENTARY INFORMATION:**List of Acronyms and References**

ANSI American National Standards Institute
 APD Application for Permit to Drill
 API American Petroleum Institute
 APM Application for Permit to Modify
 BOP Blowout Preventer
 BOEM Bureau of Ocean Energy Management
 BSEE Bureau of Safety and Environmental Enforcement
 BSR Blind Shear Ram
 CBM Condition-based Maintenance
 CVA Certified Verification Agent
 DHS Department of Homeland Security
 DOI Department of the Interior
 DWOP Deepwater Operations Plan
 ECD Equivalent Circulating Density
 EDS Emergency Disconnect Sequence
 E.O. Executive Order
 EOR End of Operations Report
 F Fahrenheit
 FPS Floating Production System
 FPSO Floating Production, Storage, and Offloading Unit
 FSHR Free Standing Hybrid Risers
 GOM Gulf of Mexico
 GPS Global Position Systems
 HPHT High Pressure High Temperature
 JIT Joint Investigation Team
 LMRP Lower Marine Riser Package
 MASP Maximum Anticipated Surface Pressure
 MMS Minerals Management Service
 MODUs Mobile Offshore Drilling Units
 NAE National Academy of Engineering
 NAICS North American Industry Classification System
 NARA National Archives and Records Administration

National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling
 NTLs Notices to Lessees and Operators
 OCS Outer Continental Shelf
 OCSLA Outer Continental Shelf Lands Act
 OEM Original Equipment Manufacturer
 OIRA Office of Information and Regulatory Affairs
 OMB Office of Management and Budget
 PE Professional Engineer
 psi Pounds per square inch
 RFA Regulatory Flexibility Act
 RIA Regulatory Impact Analysis
 RIN Regulation Identifier Number
 ROV Remotely Operated Vehicle
 RP Recommended Practice
 SBA Small Business Administration
 SBREFA Small Business Regulatory Enforcement Act of 1996
 SCCE Source Control and Containment Equipment
 Secretary Secretary of the Interior
 SEM Subsea Electronic Module
 SEMS Safety and Environmental Management
 Spec. Specification
 TAR Technical Assessment and Research
 TLP Tension Leg Platform
 TVD True Vertical Depth
 USCG United States Coast Guard
 VSL Value of a Statistical Life
 WAR Well Activity Report

Executive Summary

Following the *Deepwater Horizon* incident on April 20, 2010, multiple investigations were conducted to determine the causes of the incident and to make recommendations to reduce the likelihood of a similar incident in the future. The investigative groups included:

—DOI/Department of Homeland Security (DHS) Joint Investigation Team;

—National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling;

—Chief Counsel for the National Commission; and

—National Academy of Engineering.

Each investigation outlined several recommendations to improve offshore safety. The BSEE evaluated the recommendations and acted on a number of them quickly to improve offshore operations while other recommendations required additional input from industry and other stakeholders. The requirements in this proposed rule are based on recommendations made by the previously listed investigative bodies, which found a need to enhance well-control best practices to advance safety and protection of the environment.

This proposed rulemaking would:

(1) Incorporate the following industry standards:

- American Petroleum Institute (API) Standard 53, Blowout Prevention Equipment Systems for Drilling Wells;
- American National Standards Institute (ANSI)/API Specification (Spec.) 11D1, Packers and Bridge Plugs; and
- API Recommended Practice (RP) 17H, Remotely Operated Tools and Interfaces on Subsea Production Systems.

As related to BOP systems:

- ANSI/API Spec. 6A, Specification for Wellhead and Christmas Tree Equipment;
- ANSI/API Spec. 16A, Specification for Drill-through Equipment;
- API Spec. 16C, Specification for Choke and Kill Systems;
- API Spec. 16D, Specification for Control Systems for Drilling Well Control Equipment and Control Systems for Diverter Equipment; and
- ANSI/API Spec. 17D, Design and Operation of Subsea Production Systems—Subsea Wellhead and Tree Equipment.

(2) Revise the requirements for Deepwater Operations Plan (DWOP) which are required to be submitted to BSEE, to include requirements on free standing hybrid risers (FSHR) for use with floating production, storage, and offloading units (FPSO).

(3) Revise sections in 30 CFR part 250 Subpart D, *Oil and Gas Drilling Operations*, to include requirements for:

- Submittal of equivalent circulating density (ECD) with the Application for Permit to Drill (APD);
- Safe drilling margin;
- Wellhead description;
- Casing or liner centralization during cementing; and
- Source control and containment.

(4) Revise sections in Subparts E, *Oil and Gas Well-Completion Operations*, and F, *Oil and Gas Well-Workover Operations*, to include requirements for:

- Packer and bridge plug design, and
- Production packer setting depth.

(5) Revise sections in Subpart Q, *Decommissioning Activities*, to include requirements for:

- Packer and bridge plug design,
- Casing bridge plugs, and
- Decommissioning applications and reports.

(6) Add new Subpart G, *Well Operations and Equipment*, and move common requirements from Subparts D, E, F, and Q into new Subpart G.

Include new requirements in Subpart G for:

- Rig and equipment movement reports,
- Real-time monitoring, and
- Revised BOP requirements, including:
 - Design and manufacture/quality assurance;

- Accumulator system capabilities and calculations;
- BOP and remotely operated vehicle (ROV) capabilities;
- BOP functions (e.g., shearing);
- Improved and consistent testing frequencies;
- Maintenance;
- Inspections;
- Failure reporting;
- Third-party verification; and
- Additional submittals to BSEE including up-to-date schematics.

(7) Incorporate the guidance from several Notices to Lessees and Operators (NTLs) into Subpart G for:

- Global Position Systems (GPS) for Mobile Offshore Drilling Units (MODUs);
- Ocean Current Monitoring;
- Using Alternate Compliance in Safety Systems for Subsea Production Operations;
- Standard Reporting Period for the Well Activity Report (WAR); and
- Information to include in the WARs and End of Operation Reports (EOR).

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I. Background

BSEE

In relation to oil and gas exploration, development, and production operations on the Outer Continental Shelf (OCS), the Bureau of Safety and Environmental Enforcement (BSEE) regulates offshore oil and gas operations to promote safety, protect the environment, and conserve offshore oil and gas resources. The BSEE was established on October 1, 2011, as part of a major restructuring of DOI's offshore oil and gas regulatory programs to improve the management, oversight, and accountability of activities on the OCS. The Secretary of the Interior (Secretary) announced the new division of responsibilities of the former Minerals Management Service (MMS) into two new bureaus and one office within DOI in Secretarial Order No. 3299, issued on May 19, 2010. The

BSEE, one of the two new bureaus, assumed responsibility for “safety and environmental enforcement functions including, but not limited to, the authority to permit activities, inspect, investigate, summon witnesses and [require production of] evidence[;] levy penalties; cancel or suspend activities; and oversee safety, response and removal preparedness” (76 FR 64432, October 18, 2011).

BSEE Statutory and Regulatory Authority

The BSEE derives its authority primarily from the Outer Continental Shelf Lands Act (OCSLA), 43 U.S.C. 1331–1356a. Congress enacted OCSLA in 1953, establishing Federal control over the OCS and authorizing the Secretary to regulate oil and gas exploration, development, and production operations on the OCS. The Secretary has authorized BSEE to perform these functions under 30 CFR 250.101.

To carry out its responsibilities, BSEE regulates offshore oil and gas operations to enhance the safety of offshore exploration and development of oil and gas on the OCS and to ensure that those operations protect the environment and implement advancements in technology. The BSEE also conducts onsite inspections to assure compliance with regulations, lease terms, and approved plans. Detailed information concerning BSEE's regulations and guidance to the offshore oil and gas industry may be found on BSEE's Web site at: <http://www.bsee.gov/Regulations-and-Guidance/index.aspx>.

The BSEE regulatory program regulates a wide range of facilities and activities, including drilling, completion, workover, production, pipeline, and decommissioning operations. Drilling, completion, and workover operations are types of well operations offshore operators perform throughout the OCS from fixed and floating facilities. These well operations are the primary topic of this proposed rulemaking.

Ensuring the integrity of the wellbore and maintaining control over the pressure and fluids during well operations are critical aspects of protecting worker safety and the environment. The investigations that followed the *Deepwater Horizon* incident documented gaps or deficiencies in the OCS regulatory programs and made recommendations for improvements. The objective of this

rulemaking is to address many of these recommendations, especially those related to BOP system design, performance, and reliability.

The BOP equipment and systems are critical components of many well operations. The BOP systems can be the last defense against a release of hydrocarbons into the environment, when all other forms of well control have failed (e.g., the drilling fluid program). The BOPs may be the last line of defense in preventing release of gas that is volatile and considered to be an extreme safety hazard to rig personnel (uncontrolled gas releases can lead to explosions). The primary purpose of BOP systems is to prevent the uncontrolled release of hydrocarbons in an emergency situation by mechanically closing valves or rams that block the flow of fluid from the well. In some situations, this may require shear rams on the BOP stack to sever the drill pipe before the well can be sealed.

The BOP equipment and systems have increased in complexity as the industry moves into deeper water and develops reservoirs with pressures greater than 15,000 pounds per square inch (psi) or temperatures greater than 350 degrees Fahrenheit (F). Reservoirs with these conditions are considered high pressure high temperature (HPHT). Most of the BOPs that are used in deep water operations (400 to 10,000 feet) are located on the seabed, which presents technological and operational challenges. Additionally, HPHT operations create special metallurgical and design issues.

In this rulemaking, BSEE intends to:

- Implement many of the recommendations related to well-control equipment and fill gaps in the regulatory program.
- Increase the performance and reliability of well-control equipment, especially BOPs.
- Improve regulatory oversight over the design, fabrication, maintenance, inspection, and repair of critical equipment.
- Gain information on leading and lagging indicators of BOP component failures, identify trends in those failures, and help prevent accidents.
- Ensure that the industry uses recognized engineering practices, as well as innovative technology and techniques to increase overall safety.

Availability of Incorporated Documents for Public Viewing

When a copyrighted technical industry standard is incorporated by reference into our regulations, BSEE is obligated to observe and protect that copyright. The BSEE provides members

of the public with Web site addresses where these standards may be accessed for viewing—sometimes for free and sometimes for a fee. Standards-developing organizations decide whether to charge a fee. The API provides free online public access to key industry standards, including a broad range of technical standards. These free standards represent almost one-third of all API standards and include all that are safety-related or have been or are proposed to be incorporated into Federal regulations, including the standards in this rule. These standards are available for online review, and hardcopies and printable versions will continue to be available for purchase. We are proposing to incorporate certain API standards. The API Web site address is: <http://www.api.org/publications-standards-and-statistics/publications/government-cited-safety-documents>.

For the convenience of the viewing public, who may not wish to purchase or view these proposed documents online, they may be inspected at BSEE, 45600 Woodland Road, Sterling, Virginia 20166; phone: 703-787-1665; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

These documents, if incorporated in the final rule, would continue to be made available to the public for viewing when requested. Specific information on where these documents can be inspected or obtained can be found at 30 CFR 250.198, *Documents incorporated by reference*.

Summary of Documents Incorporated by Reference

This rulemaking is substantive in terms of the content that is explicitly stated in the rule text itself, but it also incorporates by reference some very technical, detailed standards and specifications in the topic of blowout preventers and well control. In their aggregate this represents one of the most substantial rulemakings in the history of the BSEE and its predecessor organizations. A brief summary, based on the descriptions in each standard or specification, is provided in the text that follows.

API Standard 53—Blowout Prevention Equipment Systems for Drilling Wells

This standard is to provide requirements for the installation and testing of blowout prevention equipment systems whose primary functions are to confine well fluids to

the wellbore, provide means to add fluid to the wellbore, and allow controlled volumes to be removed from the wellbore. Blowout prevention equipment systems are comprised of a combination of various components that are covered by this document. Equipment arrangements are also addressed. The components covered include:

Blowout preventers (BOPs) including installations for surface and subsea BOPs;

- Choke and kill lines;
- Choke manifolds;
- Control systems; and
- Auxiliary equipment.

This document provides new industry best practices related to:

- The use of double shear rams
- Maintenance and testing requirements.

Failure Reporting

Diverters, shut-in devices, and rotating head systems (rotating control devices) whose primary purpose is to safely divert or direct flow rather than to confine fluids to the wellbore are not addressed. Procedures and techniques for well control and extreme temperature operations are also not included in this standard.

API Recommended Practice 2RD—Design of Risers for Floating Production Systems and Tension-Leg Platforms

This document addresses structural analysis procedures, design guidelines, component selection criteria, and typical designs for all new riser systems used on Floating Production Systems (FPSs and Tension-Leg Platforms (TLPs). The presence of riser systems within an FPS has a direct and often significant effect on the design of all other major equipment subsystems. This RP includes recommendations on: (1) Configurations and components, (2) general design considerations based on environmental and functional requirements, and (3) materials considerations in riser design.

API Specification Q1—Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry

This specification establishes the minimum quality management system requirements for organizations that manufacture products or provide manufacturing-related processes under a product specification for use in the petroleum and natural gas industry. This document requires that equipment be fabricated under a quality management system that provides for

continual improvement, emphasizing defect prevention and the reduction of variation and waste in the supply chain and from service providers. The goal of this specification is to increase equipment reliability through better manufacturing controls.

API Specification 6A—Specification for Wellhead and Christmas Tree Equipment

This specification defines minimal requirements for the design of valves, wellheads and Christmas tree equipment that is used during drilling and production operations. This specification includes requirements related to dimensional and functional interchangeability, design, materials, testing, inspection, welding, marking, handling, storing, shipment, purchasing, repair and remanufacture.

ANSI/API Specification 11D1—Packers and Bridge Plugs

This specification provides minimum requirements and guidelines for packers and bridge plugs used downhole in oil and gas operations. The performance of this equipment is often critical to maintaining control of a well during drilling or production operations. This specification provides requirements for the functional specification and technical specification, including design, design verification and validation, materials, documentation and data control, repair, shipment, and storage.

ANSI/API Specification 16A—Specification for Drill-Through Equipment

This specification defines requirements for performance, design, materials, testing and inspection, welding, marking, handling, storing and shipping of BOPs and drill-through equipment used for drilling for oil and gas. It also defines service conditions in terms of pressure, temperature and wellbore fluids for which the equipment will be designed. This standard is applicable to and establishes requirements for the following specific equipment: ram blowout preventers; ram blocks, packers and top seals; annular blowout preventers; annular packing units; hydraulic connectors; drilling spools; adapters; loose connections; and clamps.

Conformance to this standard is necessary to ensure that this critical safety equipment has been designed and fabricated in a manner that ensures reliable performance.

API Specification 16C—Specification for Choke and Kill Systems

This specification was formulated to provide for safe and functionally interchangeable surface and subsea choke and kill systems equipment utilized for drilling oil and gas wells. This equipment is used during emergencies to circulate out a “kick” and therefore, the design and fabrication of the components is extremely important. The technical content in the document provides the minimum requirements for performance, design, materials, welding, testing, inspection, storing and shipping. Equipment specific to and covered by this specification includes:

- Actuated valve control lines;
- Articulated choke & kill line;
- Drilling choke actuators;
- Drilling choke control lines, exclusive of BOP control lines;
- Subsurface safety valve control lines;
- Drilling choke controls;
- Drilling chokes;
- Flexible choke and kill lines;
- Union connections;
- Rigid choke and kill lines; and
- Swivel unions.

API Specification 16D—Specification for Control Systems for Drilling Well Control Equipment and Control Systems for Diverter Equipment

This specification establishes design standards for systems that are used to control BOPs and associated valves that control well pressure during drilling operations. Although diverters are not considered well control devices, their controls are often incorporated as part of the BOP control system. Thus, control systems for diverter equipment are included in the specification. Control systems for drilling well control equipment typically employ stored energy in the form of pressurized hydraulic fluid (power fluid) to operate (open and close) the BOP stack components. For deepwater operations, transmission subsea of electric/optical (rather than hydraulic) signals may be used to short response times. The failure of these controls to perform as designed can result in a major well control event. As a result, conformance to this specification is critical to ensuring that the BOPs and related equipment will operate in an emergency.

ANSI/API Specification 17D—Design and Operation of Subsea Production Systems—Subsea Wellhead and Tree Equipment

This specification provides specifications for subsea wellheads, mudline wellheads, drill-through

mudline wellheads and both vertical and horizontal subsea trees. These devices are located on the seafloor, and therefore, ensuring the safe and reliable performance of this equipment is extremely important. This document specifies the associated tooling necessary to handle, test and install the equipment. It also specifies the areas of design, material, welding, quality control (including factory acceptance testing), marking, storing and shipping for both individual sub-assemblies (used to build complete subsea tree assemblies) and complete subsea tree assemblies.

API Recommended Practice 17H—Remotely Operated Tools and Interfaces on Subsea Production Systems

This recommended practice has been prepared to provide general recommendations and overall guidance for the design and operation of remotely operated tools (ROT) comprising ROT and ROV tooling used on offshore subsea systems. ROT and ROV performance is critical to ensuring safe and reliable deepwater operations and this document provides general performance guidelines for the equipment.

Deepwater Horizon Investigations

This section discusses relevant investigations that have significant bearing on this proposed rulemaking.

DOI/DHS Investigation

The joint DOI/DHS investigation started on April 27, 2010, when the Secretaries of DOI and DHS convened a joint investigation team (JIT) comprised of staff from the MMS and the U.S. Coast Guard (USCG). The JIT held seven public hearings and heard testimony from more than 80 witnesses. The DOI JIT issued a report on September 14, 2011, entitled, *REPORT REGARDING THE CAUSES OF THE APRIL 20, 2010 MACONDO WELL BLOWOUT*, which included its findings, conclusions, and recommendations.

National Commission

On May 22, 2010, President Barack Obama announced the creation of the *National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling* (National Commission), an independent, non-partisan entity. The President charged the National Commission to determine the causes of the disaster, to make recommendations for improvement to the country's ability to respond to spills, and to recommend reforms to make offshore energy production safer. The National Commission published its final

report on January 11, 2011, entitled, *DEEP WATER, The Gulf Oil Disaster and the Future of Offshore Drilling*.

Chief Counsel for the National Commission

Given the factual and technical complexity of some of the underlying causes of the blowout, the National Commission's Chief Counsel issued a separate report setting forth in greater detail its findings and conclusions regarding the technical, managerial, and regulatory aspects of the blowout. The report contains findings and conclusions about the loss of well control, and also contains recommendations to industry and government to enhance well design. The Chief Counsel's report was published on February 17, 2011, and is entitled, *Macondo: The Gulf Oil Disaster*.

National Academy of Engineering

At the request of DOI, a National Academy of Engineering (NAE)/ National Research Council committee examined the probable causes of the *Deepwater Horizon* explosion, fire, and oil spill in order to identify measures for preventing similar harm in the future. The final report was released December 14, 2011, and is entitled, *Macondo Well-Deepwater Horizon Blowout*. The final report provides findings about the causes of the loss of well control and the failure of the BOP to prevent release of hydrocarbons and offers recommendations to industry and government that would strengthen oversight of deepwater wells, enhance system safety, and improve cementing practices and the technical skills of industry and regulatory staff.

Recommendations on BOPs

Each of the previously discussed investigations resulted in reports that contained recommendations to improve offshore safety. One consistent element in each of the investigations was the recognition that additional requirements related to BOPs and well-control equipment are needed. The following list contains some of the recommendations on BOPs and related equipment from the various investigations:

- The BSEE should consider promulgating regulations that require operators/contractors to have the capability to monitor the subsea electronic module (SEM) battery(ies) from the drilling rig, to ensure that there is sufficient battery power to operate the system.
- The BSEE should consider requiring standardization of: Remotely Operated Vehicle (ROV) intervention

panels, ROV intervention capabilities, and maximum closing times when using an ROV; ROV hot stab and receptacles per API RP 17H; and hot stab designs between drilling and production operations.

- The BSEE should consider requiring a blind-shear ram design that incorporates improved pipe-centering in the shear ram.
- The BSEE should make effective use of industry standards and best practice guidelines used by other countries with the recognition that standards need to be updated and revised continually.
- The BSEE should improve reporting of safety-related incidents and require the reporting of near-misses to assist in accident prevention and to improve standards.
- The BSEE should develop standardized requirements for the training and certification of key industry personnel.
- The BSEE should rely on independent organizations to verify and certify compliance with critical designs and required processes.
- The BSEE should ensure that the general well design includes a review of fitness of the components for the intended use.
- The BSEE should consider promulgating regulations that would require operators to report leaks associated with BOP control systems.
- The BSEE should consider promulgating regulations that would require real-time, remote capture of drilling data and BOP function data.
- The BSEE should require improvement of the instrumentation on BOP systems so that the functionality and condition of the BOP can be monitored continuously.
- The BSEE should consider regulations that address a reasonable margin of safety between the ECD and the pressure that would cause wellbore fracturing.
- The BSEE should establish testing and maintenance requirements for BOPs to ensure operability and increased reliability appropriate to the environment and application.
- The BSEE should require improvement of the design capabilities of the BOP systems so that they can shear and seal all combinations of pipe under all possible conditions of load from the pipe and from the well flow, and so that there would always be a shearable section of the drill pipe in front of a blind-shear ram in the BOP.
- The BSEE should require demonstration of the performance of the design capabilities of BOPs and

require that they be independently certified on a regular basis by test or other means.

Stakeholder Participation

Since the *Deepwater Horizon* incident, BSEE has made it a priority to participate in meetings, training, and workshops with industry, standards organizations, and other stakeholders. The BSEE recognized that it was important to collect the best ideas on the prevention of well-control incidents and blowouts to assist in the development of this proposed rule. This includes the knowledge and skillset that industry has, and BSEE wants to benefit from that experience to improve the safety of all operations on the OCS.

Therefore, on May 22, 2012, BSEE hosted a public offshore energy safety forum that brought together Federal decision-makers, industry, academia, and other stakeholders to discuss additional steps that BSEE and the industry might take to continue to improve the reliability and safety of BOPs. This public forum provided industry experts, Federal decision-makers, and the public the opportunity for free and open dialogue. Discussion panels consisted of representatives from government organizations, trade associations, equipment manufacturers, offshore operators, consultants, training companies, and others. During the forum, five separate panels discussed the following BOP topics:

- BOP technology needs identified by *Deepwater Horizon* investigations;
- Real-time technologies that can aid in diagnostics and kick detection;
- Design requirements needed to provide assurance that BOPs would cut casing or drill pipe and seal a well effectively;
- Manufacturing, testing, maintenance, and certification requirements needed to ensure operability and reliability of BOP equipment; and
- Training and certification needs for industry personnel operating or maintaining BOPs.

You can find additional information about the forum, including presentations and transcripts, on the BSEE Web page at: <http://www.bsee.gov/BSEE-Newsroom/BSEE-News-Briefs/2012/BSEE-Hosts-BOP-Forum-in-DC>. In the year following this forum, BSEE has also received significant input and specific recommendations from industry groups, operators, equipment manufacturers, and environmental organizations on each of these items. For example, BSEE has actively participated in the following, among other events:

- The API Exploration & Production Standards Conference on Oilfield Equipment and Materials;
- The Ocean Energy Safety Institute risk forum;
- The Offshore Well Control Equipment Forum, organized by API, January 30, 2014;
- The International Regulators Forum;
- Various standards committees and sub-committees for standards development (e.g., API Committee on Standardization of Oilfield Equipment and Material Subcommittee 16 on Drilling Well Control Equipment);
- The BSEE and industry assessments of current technology involving research that BSEE is funding; and
- The BSEE sponsored standards workshops—November 2012 and January 2014.

The BSEE has considered this input in developing this proposed rulemaking and has reviewed studies and research on this topic.

BSEE Response to Recommendations and Additional Considerations

The BSEE evaluated all recommendations from the investigative bodies and public input and determined that the agency needs to update regulations related to the prevention of blowouts. The prevention of blowouts, either through precautionary measures or by operation of a BOP, is a critical priority for BSEE. The BSEE therefore focused this rulemaking on updating and revising current well-control regulations.

Several of the recommendations related to BSEE's regulatory programs were already implemented in rulemakings following the *Deepwater Horizon* incident. The following items are included in this proposed rule and arise out of the investigation reports or from other third-party recommendations.

Shearing Requirements

The BSEE regulations currently require that a BOP stack include a blind shear ram. A blind shear ram is designed to cut drill pipe in the well and shut in the well in an emergency well control situation. In order for a blind shear ram to shut in a well where drill pipe is across the BOP, it must be capable of shearing the drill pipe and there are known mechanical and design limitations that may prevent this from occurring. As demonstrated by the *Deepwater Horizon* incident, the failure of equipment to perform reliably can result in a major safety and/or environmental event.

Prior to the *Deepwater Horizon* incident, MMS commissioned the

following research on shearing capabilities: Technical Assessment & Research (TAR) Project 383, *Performance of Deepwater BOP Equipment During Well-control Events*; TAR Project 408, *Development of a Blowout Intervention Method and Dynamic Kill Simulated for Blowouts Occurring Ultra-Deepwater*; TAR Project 431, *Evaluation of Secondary Intervention Methods in Well-control*; TAR Project 455, *Review of Shear Ram Capabilities*; and TAR Project 463, *Evaluation of Shear Ram Capabilities*. This research can be found at <http://www.bsee.gov/Technology-and-Research/Technology-Assessment-Programs/Categories/Drilling/>. The research indicated that there was a large amount of uncertainty related to the shearing capability of existing BOPs. These reports documented that there were inconsistent and inadequate testing protocols used by manufacturers to demonstrate shearing capability, a failure to share shearing data that would allow for a better understanding of shearing capability, and a concern that not all operators and drilling contractors are aware of the limitations of the equipment they are using.

Following the *Deepwater Horizon* incident, the Agency received recommendations from multiple investigations and studies concerning the need for new and more rigorous requirements and technologies to ensure that drilling components can be severed and a well safely shut-in during an emergency. The BSEE is proposing a series of new requirements to address the gaps that were identified in these reports, incorporate recent industry standards, and assist in the adoption of improved technology through performance-based requirements.

Some of the limitations of current designs are well known. Industry acknowledges that BOP equipment would not shear drill collars, heavy weight drill pipe, or drill pipe tool joints. This inability to shear all of the components in the drill string can create significant complications in an emergency situation and increase the likelihood of a catastrophic event occurring. As the industry continues to develop more technically challenging resources, shearing and sealing become more difficult for several reasons, including:

- The improvements in drill pipe properties, particularly increased material strength and ductility, result in higher forces being required to shear the drill pipe in the future.
- Increased water depths, in combination with drilling fluid density and shut-in pressure,

contribute to a BOP having to generate additional force to successfully shear.

The BSEE believes that the current testing protocols and verification procedures must be strengthened to ensure that the capabilities of shearing equipment are clearly understood and demonstrated. Furthermore, on a longer term basis, the overall performance of this equipment must improve to ensure that it can operate in an emergency situation and can successfully shear a drill stem. In this rule, BSEE is proposing to accomplish these objectives through the following:

- Require operators to assure that shearing capability for existing equipment complies with BSEE requirements related to shearing by performing tests and providing detailed results to a BSEE-approved verification organization. This organization would perform an independent engineering review of the test protocols and data and ensure that the testing would provide reasonable assurances that the equipment would perform as designed on drill pipe of specific mechanical and physical properties and under the operating conditions relevant to the particular well at which the equipment will be used. The BSEE expects that the independent engineering review would be based on recognized engineering practices. To become a BSEE-approved verification organization, organizations would need to submit documentation for BSEE approval describing the applicable qualifications and experience. This engineering review process would assist in developing more standardized testing protocols, increase data sharing within the industry, and provide information for future BSEE determinations of best available and safest technologies under section 21 of OCSLA, 43 U.S.C. 1347. The BSEE anticipates that industry would play an important role in this process by developing rigorous testing procedures and protocols for organizations that perform the testing.
- Require compliance with the latest industry standards contained in API Standard 53. In addition to these industry standards, BSEE would also include a requirement that operators use two shear rams in subsea BOP stacks. The use of double shear rams would increase the likelihood that a drill string can be sheared by ensuring that a shearable component is opposite a shear ram. In this proposed rulemaking, BSEE will not propose adopting the provision in API

Standard 53 that operators can “opt out” of this double shear ram requirement for moored rigs. If there are unique circumstances that prevent the use of two shear rams, operators would be able to apply for the use of alternative procedures or equipment under § 250.141.

—Require the use of BOP technology that provides for better shearing performance through the centering of the drill pipe in the shear rams. A number of investigations¹ have found that the shear rams did not completely cut the drill pipe in the *Deepwater Horizon*. This occurred because the drill pipe was not centered within the stack. The BSEE is aware of at least one BOP equipment manufacturer that currently has pipe centering technology available and proposes to require the use of pipe centering within 7 years after the publication of the final rule to encourage further technological development.

Equipment Reliability and Performance

Prior to the *Deepwater Horizon* incident, the industry’s guidance document for the operation of BOPs was API RP 53—*Recommended Practices for Blowout Prevention Equipment Systems for Drilling Wells*, Third Edition, March 1, 1997 (Reaffirmed September 1, 2004). The BSEE currently incorporates only specific sections of this document in existing regulations, including sections related to maintenance, inspection, and accumulator systems. Following the *Deepwater Horizon* incident, industry recognized the need to enhance BOP guidance and concluded that it was necessary to completely rewrite API RP 53 and upgrade the document from an RP to a standard. The BSEE participated in the development of the industry standard and is proposing to incorporate the newly published standard into its regulations. Additionally, other key industry standards concerning this type of equipment would be incorporated by reference.

The BSEE concluded that incorporating new API Standard 53 provisions into its regulations would allow for better regulatory oversight and would ensure improved BOP design and operability. The BSEE believes that the incorporation of this document, and other key industry standards, such as ANSI/API Spec. 6A, ANSI/API Spec. 16A, API Spec. 16C, API Spec. 16D, ANSI/API Spec. 17D, and API Spec. Q1, would establish minimum design, manufacture, and performance baselines for this equipment and is essential to

ensure the reliability and performance of this equipment. The BSEE anticipates that BOP equipment that meets these new requirements, along with several supplemental requirements (such as requiring blind-shear rams that incorporate improved pipe-centering designs), would perform in a more reliable manner.

The BSEE believes that the reliability of BOP-related equipment would also increase if its inspection, maintenance, and repair are performed by highly-trained personnel. Operators are currently required by BSEE regulations to ensure that all personnel are properly trained. The BSEE proposes to add requirements that specify that these personnel be qualified and trained pursuant to original equipment manufacturer (OEM) recommendations, unless otherwise specified by BSEE. The BSEE encourages industry to develop standards and certification programs for these personnel.

Third-Party Verification

Regulatory oversight of the lifecycle of BOP equipment, ranging from design, installation, inspection, testing, maintenance, and repair, presents a variety of logistical and technical challenges, especially because the equipment might be used at multiple locations. In several sections of the proposed regulations, BSEE would require third-party verification of the design, maintenance, inspection, testing, and repair of BOP systems and equipment by a BSEE-approved entity. We believe that the use of third-party verification organizations would help BSEE ensure that these systems are designed and maintained during their entire service life to minimize risk. For subsea BOPs or BOPs used in HPHT applications, we are proposing that BSEE-approved verification organizations submit reports verifying compliance with these new requirements. This verification would provide BSEE with reasonable assurance that the equipment is fit for service as intended.

The BSEE is also proposing an additional qualification and verification process for BOP(s) and related equipment used in HPHT wells. The verification must be specific to the conditions of the particular well at which the BOP(s) will be used. This verification process is needed because there are currently no engineering standards for the design, fabrication, and testing of equipment used in HPHT conditions. The use of a BSEE-approved verification organization would provide an additional layer of review and verification during the development and

operation of the equipment. It would be the responsibility of the operator to clearly demonstrate to the BSEE-approved verification organization and BSEE that the equipment was designed for the HPHT conditions specific to the well, and will perform in a reliable manner during its service life under those conditions. To become a BSEE-approved verification organization, the organization would have to submit documentation for approval describing the organization’s applicable qualifications and experience.

Failure Reporting/Near-Miss Reporting

Several of the standards that BSEE proposes to incorporate by reference contain failure reporting processes that ensure that operators share information with OEMs related to the performance of their equipment. This sharing of information makes it possible for the OEMs to notify users of any safety issues that arise. In 2009, the industry provided the MMS with a BOP reliability study that specifically noted the importance of ANSI/API Spec. 16A, Annex F, and referred to this requirement as “an excellent practice that assists manufacturers in identifying problems that occur in the operation and maintenance of their projects.” The BSEE agrees with this statement and is including this requirement in the proposed regulations.

Because the same equipment designs are often used by multiple operators, ensuring the timely reporting of this type of data can play an important role in preventing future incidents. The need for a formalized process for disseminating information to the industry was clearly demonstrated following the December 2012 failures of certain bolts used in BOPs and wellhead connectors in the Gulf of Mexico (GOM). Subsequent investigations revealed that although these failures had occurred over a period of years, most of the industry was not aware of the safety issues. The BSEE is proposing that the operators report any significant problems with BOP or well-control equipment to BSEE to ensure that this information can be provided in a timely manner to OCS operators and the international community. In the long term, BSEE would continue to encourage industry to develop a comprehensive and formalized method of collecting, analyzing, and disseminating failure data involving critical equipment.

Safe Drilling Practices

The proposed regulations include new requirements related to the maintenance of safe drilling margins

¹ See DOI JIT investigation recommendation, D6.

consistent with the recommendations arising out of *Deepwater Horizon* investigations. The BSEE also proposes to add requirements related to liners and other downhole equipment. We believe that these requirements would help to reduce the likelihood of a major well-control event occurring and ensure the overall integrity of the well design.

The proposed rule would require that operators have the capability to monitor deepwater and HPHT drilling operations from the shore and in real time. This would allow operators to anticipate and identify issues in a timely manner and to utilize onshore resources to assist in addressing critical issues. It would allow BSEE greater visibility of operations so BSEE may focus on specific critical operations for additional oversight.

The BSEE also proposes a requirement that designated operators report leaks associated with BOP control systems on the daily report, in the WAR, and directly to the District Manager. This requirement would ensure that the agency is made aware of any leaks and may determine if agency action is appropriate.

The proposed regulation would include requirements concerning ROV operations, including the adoption of API RP 17H to standardize ROV hot stab activities. An ROV hot stab is a high pressure subsea connector used to connect the ROV into the BOP system. An ROV hot stab is basically comprised of two parts:

- A valve; and
- A tool that connects onto the valve and controls the valve.

The valve is usually placed on the subsea BOP stack panel, and is accessible for an ROV to insert the tool and activate certain functions on the BOP.

BOP Testing

In response to public input related to the value of pressure testing in predicting future performance of a BOP and industry concerns about the operational safety issues associated with performing these tests, BSEE proposes to modify the BOP testing frequency for workover and decommissioning operations. The BSEE proposes to change the current 7 day BOP testing interval for workover (current § 250.617(b)) and decommissioning (current § 250.1707(b)) operations to 14 days, which is consistent with the testing frequency requirements (reference current § 250.447(b) and 250.517(a)) for drilling and completion operations. Some drilling, completion, workover, and decommissioning operations use the same rigs and BOP

systems; therefore, to ensure consistency among different operations involving the same equipment, BSEE proposes to harmonize the requirements for that type of equipment. Harmonizing the testing frequency would streamline the BOP function-testing criteria and increase safety by reducing repetition of operations, such as pulling out of the hole and running in the hole, that pose operational safety issues, therefore limiting the exposure of potential risks to offshore personnel. This may also have a positive effect on overall equipment durability and reliability.

A benefit of this provision would be a cost saving to industry. We estimated the total cost savings to industry from this provision to be \$150,000,000 per year (see the economic analysis for more detailed information). Based upon existing available data and the timeframes of the economic analysis, the cost savings benefits of the proposed rule would result in benefits greater than the identified quantitative costs of the rule. The BSEE is requesting comments on whether the proposed BOP testing interval should be 7 days, 14 days (as proposed), or 21 days for all types of operations including drilling, completions, workovers, and decommissioning. The BSEE is also requesting comments on the specific cost implications of each testing interval to further its consideration of the issue. For more information on the costs and benefits of the proposed rule, refer to the economic analysis.

In addition to cost savings benefits, BSEE's economic analysis also considers benefits from potential reductions in oil spills and reduced fatalities. The BSEE is requiring additional measures (e.g. real-time monitoring and increased maintenance) that help ensure the functionality and operability of the BOP system and, therefore, will reduce the risks of spills and fatalities.

The BSEE is also soliciting comments on the use of pressure and functional tests during drilling operations to verify performance, the adequacy of current and proposed testing requirements, and the identification of risks associated with increasing or decreasing the testing frequency.

II. Organization of Subpart G

The BSEE determined that the most effective way to communicate consistent requirements for BOPs across all well operations (drilling, completion, workover, and decommissioning) is to consolidate those common requirements in one location. The current regulations repeat similar BOP requirements in multiple locations throughout 30 CFR

part 250. The BSEE is proposing to consolidate these requirements into Subpart G, which is currently reserved. This would allow better flexibility, efficiency, and consistency in future rulemaking. The proposed rule would structure proposed Subpart G—Well Operations and Equipment, under the following undesignated headings:

- GENERAL REQUIREMENTS
- RIG REQUIREMENTS
- WELL OPERATIONS
- BLOWOUT PREVENTER (BOP) SYSTEM REQUIREMENTS
- RECORDS AND REPORTING

The sections contained within this new subpart would apply to all drilling, completion, workover, and decommissioning activities, unless explicitly stated otherwise.

III. Effective Date of a Final Rule

The BSEE understands that operators may need time to comply with certain requirements proposed in this rule. The BSEE is taking into consideration the amount of time needed to meet the requirements for the installation of double shear rams and new certification requirements. Based on information provided by industry, all new drilling rigs are already being built, pursuant to the same industry standards BSEE now proposes to adopt (including API Standard 53), and many have already been retrofitted to comply with these industry standards. Furthermore, most already comply with recognized engineering practices and OEM requirements related to repair and training. The BSEE evaluated the proposed requirements in this proposed rule and seeks to set reasonable effective dates for those requirements based on information gained during, among other activities, interaction with stakeholders, involvement with development of industry standards, and evaluation of current technology. The BSEE proposes an effective date of 3 months following publication of the final rule. Operators would be required to demonstrate compliance with most of the proposed requirements at that time, with the exception of the following more extended timeframes:

- Operators would be required to comply with the real-time monitoring requirements within 3 years from the publication of the final rule.
- Operators would be required to install double shear rams on subsea BOPs and on surface BOPs on floating facilities within 5 years from the publication of the final rule.
- Operators would be required to install shear rams that center drill pipe during shearing operations within 7

years from the publication of the final rule.

The BSEE is soliciting comments about the proposed compliance dates for the requirements in this proposed rule to ensure the dates are appropriate. The BSEE is specifically soliciting comments on whether the 3-month, 3-year, 5-year, and 7-year compliance dates are appropriate and achievable. The BSEE is also specifically soliciting comments on whether the proposed requirements can be met sooner than the proposed compliance dates (*e.g.*, 5 years after publication of the final rule for centering drill pipe), and the anticipated costs for meeting these proposed compliance dates. Please provide justification for your responses.

Note that BSEE still retains the discretion under § 250.141 to authorize alternate procedures or equipment that provide an equivalent level of safety and environmental protection.

IV. Future Plans for Subpart G

In future rulemaking, BSEE intends to include additional regulatory requirements for operations and equipment in Subpart G, such as:

- Well-control planning, procedures, training, and certification;
- Major rig equipment;
- Certification requirements for personnel servicing critical equipment;
- Choke and kill systems;
- Mud gas separators;
- Wellbore fluid safety practices, testing, and monitoring;
- Diverter systems with subsea BOPs; and
- Coiled tubing, snubbing, and wireline units.

The BSEE is also researching other topics that would be appropriate for inclusion into this new subpart in future rulemakings.

V. Section-By-Section Discussion

Subpart A—General

What does this part do? (§ 250.102)

This section would be revised to add references for Subpart G to (b)(1), (11), (12), and (13) and also add new paragraph (b)(19) to the table. This would be added so the public will know that they can find requirements about well operations and equipment in proposed Subpart G.

What must I do to protect health, safety, property, and the environment? (§ 250.107)

Paragraph (a) of this section would be revised to include a general performance-based requirement that

operators utilize recognized engineering practices that reduce risks to the lowest level practicable during activities covered by the regulations and conduct all activities pursuant to the applicable lease, plan, or permit terms or conditions of approval. Recognized engineering practices may be drawn from established codes, industry standards, published peer-reviewed technical reports or industry recommended practices, and similar documents applicable to engineering, design, fabrication, installation, operation, inspection, repair, and maintenance activities. This risk reduction objective is used in other regulatory programs and is consistent with BSEE's goal of taking a more risk-based approach in its regulations. This risk reduction principle has also been included in a recently published industry document (API Bulletin 97) which addresses drilling, completion, and workover activities.

Proposed paragraph (e) would be added to clarify BSEE's authority to issue orders when necessary to protect health, safety, property, or the environment. The first sentence authorizes BSEE to issue orders to ensure compliance with the regulations. The second sentence clarifies that BSEE may order that operations of a component or facility be shut-in because of a threat of serious, irreparable, or immediate harm to health, safety, property, or the environment posed by those operations or because the operations violate law, including a regulation, order, or provision of a lease, plan, or permit.

Service fees. (§ 250.125)

This table in this section would be revised to reflect the correct citation for payment of the service fee relating to DWOPs.

Documents incorporated by reference. (§ 250.198)

This section would be revised to update citations of currently incorporated documents and to incorporate new documents. Changes to this section would include:

- Revising paragraph (h)(51) to update cross-references to the sections incorporating API RP 2RD, Design of Risers for Floating Production Systems (FPSs) and Tension-Leg Platforms (TLPs);
- Removing the incorporation of API RP 53 in paragraph (h)(63) and in its place incorporating new API Standard 53, Blowout Prevention Equipment Systems for Drilling Wells, Fourth Edition (with the exception of the opt-out provision);

- Revising paragraph (h)(68) to update cross-references to the sections incorporating API Spec. Q1, Specification for Quality Programs for the Petroleum, Petrochemical and Natural Gas Industry;
- Revising paragraph (h)(70) to update cross-references to the sections incorporating ANSI/API Spec. 6A, Specification for Wellhead and Christmas Tree Equipment;
- Adding new paragraph (h)(89) to incorporate ANSI/API Spec. 11D1, Packers and Bridge Plugs;
- Adding new paragraph (h)(90) to incorporate ANSI/API Spec. 16A, Specification for Drill-through Equipment;
- Adding new paragraph (h)(91) to incorporate API Spec. 16C, Specification for Choke and Kill Systems;
- Adding new paragraph (h)(92) to incorporate API Spec. 16D, Specification for Control Systems for Drilling Well Control Equipment and Control Systems for Diverter Equipment;
- Adding new paragraph (h)(93) to incorporate ANSI/API Spec. 17D, Design and Operation of Subsea Production Systems—Subsea Wellhead and Tree Equipment;
- Adding new paragraph (h)(94) to incorporate ANSI/API RP 17H, Remotely Operated Vehicle Interfaces on Subsea Production Systems.

Paperwork Reduction Act statements—information collection. (§ 250.199)

- This section would be revised by:
- Changing all the OMB Control Numbers from the 1010 numbering system to BSEE's new 1014 numbering system;
 - Rewording for plain language the reasons that BSEE collects the information and how it is used; and
 - Adding paragraphs for APDs, Application for Permit to Modify (APM), and Subpart G in the table to identify the basis for the information collection.

Subpart B—Plans and Information

What must the Deepwater Operations Plan (DWOP) contain? (§ 250.292)

The proposed rule would re-designate existing paragraph (p) to (q) and add a new paragraph (p). Proposed new paragraph (p) would specify FSHR requirements within the DWOP. The FSHRs are used in combination with FPSOs. The use of FPSOs is relatively new to the GOM. There is only one FPSO currently operating in the GOM; however, the use of FPSOs is expected to increase in the next few years.

Currently, BSEE approves the use of FPSOs and associated FSHRs through the DWOP process, but has no regulations specifically addressing the use of FSHRs. Proposed paragraph (p) would outline what BSEE requires in a DWOP that proposes the use of FSHRs. The new requirements would include submission of the following:

- Detailed descriptions and drawings of the FSHR buoy and tether system;
- Information on the design, fabrication, and installation of the FSHR buoy and tether system, including pressure ratings, fatigue life, and yield strengths;
- A description of how the operator met the design requirements, load cases, and allowable stresses for each load case according to API RP 2RD, RP for Design of Risers for FPSs and TLPs;
- Detailed information regarding the tether system used to connect the FSHR to a buoyancy air can;
- Descriptions of the monitoring system and a monitoring plan to monitor the pipeline FSHR and tether for fatigue, stress, and any other abnormal condition (e.g., corrosion) that may negatively impact the riser or tether; and
- Documentation that the tether system and connection accessories for the pipeline FSHR have been certified by an approved classification society or equivalent and verified by the Certified Verification Agent (CVA) as required in current Subpart I and clarified in BSEE NTL 2007–G14, *Pipeline Risers Subject to the Platform Verification Program*.

Subpart D—Oil and Gas Drilling Operations

General Requirements. (§ 250.400)

The proposed rule, would revise this entire section including the section heading. The current section entitled, *Who is subject to the requirements of this subpart?* is not necessary because the subject matter is sufficiently covered under § 250.146, which states that lessees, operators, and the person actually performing the activity to which a requirement applies are jointly and severally responsible for complying with the regulations.

The new proposed language would require drilling operations to be done in a safe manner to protect against harm or damage to life (including fish and other aquatic life), property, natural resources of the OCS, including any mineral deposits (in areas leased and not leased), the National security or defense, or the marine, coastal, or human environment. The new section would also clarify that for drilling operations,

the operator would need to follow the requirements of this subpart and the applicable requirements of proposed Subpart G.

What must I do to keep wells under control? (§ 250.401)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.703.

When and how must I secure a well? (§ 250.402)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.720.

What drilling unit movements must I report? (§ 250.403)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.712.

What additional safety measures must I take when I conduct drilling operations on a platform that has producing wells or has other hydrocarbon flow? (§ 250.406)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.723.

What information must I submit with my application? (§ 250.411)

This section would be revised by separating the diverter and BOP descriptions in the table containing regulatory cross-references for descriptions of APD information, and updating the cross-references to include proposed Subpart G.

What must my description of well drilling design criteria address? (§ 250.413)

This section would revise paragraph (g) to include the maximum ECD on the pore pressure/fracture gradient plot. The ECD is the effective density exerted by a circulating fluid against the formation that takes into account the pressure drop in the annulus. The ECD is an important parameter in avoiding kicks and losses, particularly in wells that have a narrow window between the fracture gradient and pore pressure. This information is necessary for proper well drilling design and for BSEE to better review the drilling program.

What must my drilling prognosis include? (§ 250.414)

This section would revise paragraphs (c), (h), and (i) and add new paragraphs (j) and (k).

Paragraph (c) of this section would be revised to better define the safe drilling margin requirements. The planned safe drilling margins would be required to be

between the proposed drilling fluid weights and the estimated pore pressures and the lesser of estimated fracture gradients or casing shoe pressure integrity test. The safe drilling margins would also have to meet the following conditions:

- Static downhole mud weight must be greater than estimated pore pressure;
- Static downhole mud weight must be a minimum of one-half pound per gallon below the lesser of the casing shoe pressure integrity test or the lowest estimated fracture gradient;
- The ECD must be below the lesser of the casing shoe pressure integrity test or the lowest estimated fracture gradient;
- When determining the pore pressure and lowest estimated fracture gradient for a specific interval, related hole behavior must be considered (e.g., pressures, influx/loss of fluids, and fluid types).

Changes to better define safe drilling margins are partially based on the information revealed during investigations of the *Deepwater Horizon* incident.² Safe drilling margins are used to determine the downhole fluid program and ensure fluid densities are capable of controlling the estimated pore pressure and formation fluids while not fracturing the formations. With clearer requirements for safe drilling margins, operators would be able to better understand BSEE requirements and design fluid programs accordingly.

Paragraphs (h) and (i) would be revised with only minor wording changes.

New paragraph (j) would be added to require that the drilling prognosis include the type of wellhead and liner hanger systems to be installed and a descriptive schematic. The descriptive schematic would include, among other information, pressure ratings, dimensions, valves, load shoulders, and locking mechanism, if applicable. This information would assist BSEE in its review of the APD, and assist staff in ensuring that the wellhead and liner hanger systems are adequate for the proposed use.

New paragraph (k) would be added to require submittal of any additional information required by the District Manager.

What must my casing and cementing programs include? (§ 250.415)

Paragraph (a) of this section would be revised to include casing information for all sections of each casing interval. Operators would also need to include

² See DOI JIT investigation recommendation, A3.

bit depths (including measured and true vertical depth (TVD)), and locations of any installed rupture disks and indicate either the collapse or burst ratings. Requiring this information for all sections for each casing interval would make design calculations and submittals more accurate and provide a complete representation of the well.

What must I include in the diverter description? (§ 250.416)

This heading and section would be revised to remove the BOP descriptions and leave the diverter descriptions. The BOP descriptions would be moved to new Subpart G in proposed §§ 250.730, 250.731, and 250.732. The diverter requirements would remain unchanged.

What must I provide if I plan to use a mobile offshore drilling unit (MODU)? (§ 250.417)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.713.

What additional information must I submit with my APD? (§ 250.418)

Paragraph (g) of this section would be revised to require operators to seek approval for plans to wash out or displace cement to facilitate casing removal upon well abandonment. The request would need to include a description of how far below the mudline the operator proposes to displace cement and how the operator will visually monitor returns. This proposed change would provide information that would assist BSEE in its review of the APD.

What well casing and cementing requirements must I meet? (§ 250.420)

The introductory language in this section would be revised to require that applicable casing and cementing requirements in proposed Subpart G must also be followed.

Existing paragraph (a)(6) would be renumbered as paragraph (a)(7). New paragraph (a)(6) would be added to require adequate centralization to help ensure proper cementation. Multiple *Deepwater Horizon* investigations discussed the use of centralizers, which are devices that maintain the casing or liner in the center of the wellbore to help ensure efficient placement of cement around the casing string. If an operator cements casing off-center, the wellbore may not be properly sealed. New paragraph (b)(4) would be added to specify that if casing is needed that differs from what was approved in the APD, the operator would have to contact the appropriate District Manager and receive approval before installing the

different casing. This addition is necessary to ensure the casing is suitable for the well conditions and for BSEE to have the most up-to-date wellbore information.

Paragraph (c) would be renumbered and revised by adding a new paragraph (c)(2). New paragraph (c)(2) would require the use of a weighted fluid to maintain an overbalanced hydrostatic pressure during the cement setting time, except when cementing casings or liners in riserless hole sections. This proposed change would enhance wellbore stability during cementing.

The use of a weighted fluid is particularly important because most well-control events occur due to inadequately weighted fluids in the hole, as well as inadequate volume of fluid to hold back the pressures in the well. A weighted fluid has a greater density than seawater. As the density of the weighted fluid increases, it exerts a greater hydrostatic pressure, thereby minimizing the potential for the well to flow.

What are the casing and cementing requirements by type of casing string? (§ 250.421)

Paragraph (b) of the table in this section would be revised to specify that if oil, gas, or unexpected formation pressure is encountered, the operator would have to set conductor casing immediately and set it above the encountered zone, even if it is before the planned casing point. This proposed change would ensure that conductor casing is not placed across a hydrocarbon zone.

Paragraph (f) of the table in this section would be revised to disallow the use of liners as conductor casing. When a liner is used as conductor casing, a portion of the drive pipe is exposed to wellbore pressure, and BSEE does not accept drive pipe as a pressure-rated component. By prohibiting the use of liners as conductor casing, BSEE would ensure that the drive pipe is not exposed to wellbore pressures.

What are the requirements for casing and liner installation? (§ 250.423)

This section would be revised as follows:

- Change the heading to more accurately reflect corresponding changes within the section.
- Remove the pressure testing and negative pressure testing requirements. The pressure testing requirements would be found in proposed § 250.721.
- Add information to clarify that liner latching mechanisms, if applicable, would need to be engaged upon

successfully installing and cementing the casing string or liner.

This last addition would reinforce the importance that liners are properly secured in place to ensure wellbore integrity. The requirements for latching and lockdown mechanisms were also a topic of discussion in the DOI JIT *Deepwater Horizon* investigation.

What are the requirements for prolonged drilling operations? (§ 250.424)

This section would be removed and reserved. The content of this section would be moved to in proposed § 250.722.

What are the requirements for pressure testing liners? (§ 250.425)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.721.

What are the recordkeeping requirements for casing and liner pressure tests? (§ 250.426)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.746.

What are the requirements for pressure integrity tests? (§ 250.427)

Paragraph (b) would be revised to clarify that operators must maintain the drilling margins as described in § 250.414.

What must I do in certain cementing and casing situations? (§ 250.428)

Paragraph (b) of the table in this section would be revised to require District Manager approval for hole interval drilling depth changes greater than 100 feet TVD, and submittal of a professional engineer (PE) certification, certifying that the PE reviewed and approved the proposed changes. This requirement would assist BSEE in verifying the actual well conditions. This new requirement would also ensure proper PE review of associated changes.

Paragraph (c) of the table in this section would be revised to clarify requirements concerning what actions must be taken if there is an indication of an inadequate cement job. There are many indicators of an inadequate cement job. These include lost returns, no returns to the mudline or failure to reach the expected height for the specific cement job, cement channeling, abnormal pressures, or failure of equipment. If any of these indicators, or others, are encountered during the cement job, then action must be taken to ensure the cement job is adequate. Such actions may include running a temperature survey, running a cement

evaluation log (such as an ultrasonic or equivalent bond log), or a combination of these or other techniques to check cement integrity by verifying the top of cement, density, condition, bond, etc. If the cement job is determined to be adequate, the results of the cement job determination would be submitted to the District Manager in the WAR.

Paragraph (d) of the table in this section would be revised to clarify that if an operator has an inadequate cement job, the District Manager would have to review and approve all proposed remedial actions, unless immediate actions must be taken to ensure the safety of the crew or to prevent a well-control event. If the operator needs to take immediate action, a description would be required to be submitted to the District Manager once the action is completed. The paragraph would also clarify that any changes to the well program would require PE certification and would need to meet any other requirements imposed by the District Manager.

New paragraph (k) would be added to the table in this section and would add clarification concerning the use of valves on drive pipes during cementing operations for the conductor casing, surface casing, or liner, and require the following to assist BSEE in assessing the structural integrity of the well:

- The operator would include a description in the APD of the plan to use a valve that includes a schematic of the valve and height above the water line.
- The valve would be remotely operated and full opening with visual observation while taking returns.
- The person in charge of observing returns would be in communication with the drill floor.
- The operator would record in the daily report and in the WAR if cement returns were observed; and
- If cement returns were not observed, the operator would have to contact the District Manager and obtain approval of proposed plans to locate the top of cement, before continuing with operations.

These proposed additions in paragraph (k) would help BSEE assess the well's structural integrity and verify cement suitability to the mudline.

The overall changes to this section would help BSEE assess actual well operations and conditions, and also would help ensure proper design with additional PE review.

What are the general requirements for BOP systems and system components? (§ 250.440)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.730.

What are the requirements for a surface BOP stack? (§ 250.441)

This section would be removed and reserved. The content of this section would be moved to proposed §§ 250.733 and 250.735.

What are the requirements for a subsea BOP system? (§ 250.442)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.734.

What associated systems and related equipment must all BOP systems include? (§ 250.443)

This section would be removed and reserved. The content of this section would be moved to proposed §§ 250.733, 250.734, and 250.735.

What are the choke manifold requirements? (§ 250.444)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.736.

What are the requirements for kelly valves, inside BOPs, and drill-string safety valves? (§ 250.445)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.736.

What are the BOP maintenance and inspection requirements? (§ 250.446)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.739.

When must I pressure test the BOP system? (§ 250.447)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.737.

What are the BOP pressure tests requirements? (§ 250.448)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.737.

What additional BOP testing requirements must I meet? (§ 250.449)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.737.

What are the recordkeeping requirements for BOP tests? (§ 250.450)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.746.

What must I do in certain situations involving BOP equipment or systems? (§ 250.451)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.738.

What safe practices must the drilling fluid program follow? (§ 250.456)

This section would remove paragraph (j) and re-designate the other paragraphs. The content of current paragraph (j) would be moved to proposed § 250.720 to clarify that this requirement applies to drilling, workover, completion, and abandonment operations.

What are the source control and containment requirements? (§ 250.462)

This section and heading would be entirely revised. The existing content of this section entitled, *What are the requirements for well-control drills?* would be moved to proposed §§ 250.710 and 250.711.

This proposed new section would add requirements for the operator to demonstrate the ability to control or contain a blowout event at the sea floor. This section would apply to operations using a subsea BOP or a surface BOP on a floating facility.

Paragraph (a) would require the operator to determine its source control and containment capabilities by evaluating the performance of the well design to determine if a full shut-in can be achieved without reservoir fluids breaching the sea floor. Based on this evaluation, if the well can only be partially shut-in, then the operator would be required to establish the ability to flow and capture any residual fluids to a surface production and storage system.

Paragraph (b) would require that operators have access to, and the ability to deploy, Source Control and Containment Equipment (SCCE) necessary to regain control of the well. The SCCE means the capping stack, cap and flow system, containment dome, and/or other subsea and surface devices, equipment, and vessels whose collective purpose is to control a spill source and stop the flow of fluids into the environment or to contain fluids escaping into the environment. This equipment would need to include, but not be limited to:

- Subsea containment and capture equipment, including containment domes and capping stacks;
- Subsea utility equipment, including hydraulic power, hydrate control, and dispersant injection equipment;
- Riser systems;

- ROVs;
- Capture vessels;
- Support vessels; and
- Storage facilities.

Paragraph (c) would require submittal of a description of the source control and containment capabilities before BSEE would approve an APD. The submittal to the Regional Supervisor would need to include the following:

- The source control and containment capabilities for controlling and containing a blowout event at the seafloor,
- A discussion of the determination required by paragraph (a), and
- Information showing that the operator has access to, and the ability to deploy, all equipment necessary to regain control of the well.

Paragraph (d) would require that operators contact the District Manager and Regional Supervisor for reevaluation of the source control and containment capabilities if there are any well design changes or if any of the approved SCCE is out of service. Paragraph (e) would outline the maintenance, inspection, and testing requirements of certain identified containment equipment as follows:

Equipment	Requirements	Additional information
(1) Capping stacks	(i) Function test all pressure holding critical components on a quarterly frequency (not to exceed 104 days), (ii) Pressure test pressure holding critical components on a bi-annual basis, but not later than 210 days from the last pressure test. All pressure testing must be witnessed by BSEE and a BSEE-approved verification organization, (iii) Notify BSEE at least 21 days prior to commencing any pressure testing.	Pressure holding critical components are those components that will experience wellbore pressure during a shut-in after being functioned. Pressure holding critical components are those components that will experience wellbore pressure during a shut-in. These components include, but are not limited to: all blind rams, wellhead connectors, and outlet valves.
(2) Production safety systems used for flow and capture operations.	(i) Meet or exceed the requirements set forth in 30 CFR 250.800 through 250.808, Subpart H. (ii) Have all equipment unique to containment operations available for inspection at all times.	
(3) Subsea utility equipment	Have all equipment unique to containment operations available for inspection at all times,	Subsea utility equipment includes, but is not limited to: hydraulic power sources, debris removal, hydrate control equipment, and dispersant injection equipment.

All of these changes in this section are necessary for BSEE to properly assess an operator’s ability to access and deploy appropriate equipment sufficient to control and contain a blowout subsea. The *Deepwater Horizon* incident demonstrated a need for the capabilities to control and contain subsea blowouts. Following the *Deepwater Horizon* incident, operators did not resume certain drilling operations on the OCS until successfully demonstrating their ability to control and contain a subsea blowout. Industry quickly developed the capabilities and equipment, and satisfactorily demonstrated to BSEE the equipment capabilities to ensure subsea blowout control and containment.

The BSEE is considering applying the requirements of this section to other operations besides those that use a subsea BOP or surface BOP on a floating facility. Specifically, BSEE is soliciting comments on whether the source control and containment requirements should be applicable to wells drilled in shallow water. Please provide reasons for your position. If your comment addresses anticipated costs associated with such a requirement, please provide any available supporting data.

When must I submit an Application for Permit to Modify (APM) or an End of Operations Report to BSEE? (§ 250.465)

Paragraph (b)(3) would be revised to clarify that if there is a:
—Revision to the drilling plan;
—Major drilling equipment change; or
—Plugback,
operators would have to submit an EOR, Form BSEE–0125, as required in proposed § 250.744, within 30 days after completing the work. This would help ensure that BSEE has the current well information.

What records must I keep? (§ 250.466)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.740.

How long must I keep records? (§ 250.467)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.741.

What well records am I required to submit? (§ 250.468)

This section would be removed and reserved. The content of this section would be moved to proposed §§ 250.742 and 250.743.

What other well records could I be required to submit? (§ 250.469)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.745.

Subpart E—Oil and Gas Well-Completion Operations

General requirements. (§ 250.500)

This section would be revised to add a requirement to follow the applicable requirements of new Subpart G in addition to Subpart E. With the development of new Subpart G, BSEE would consolidate similar requirements regarding drilling, workover, completion, and decommissioning activities into a separate subpart. It is BSEE’s intention to include additional regulations regarding similar operations and equipment in the new Subpart G in future regulations.

This section would also be revised to replace the word “shall” with “must.” This change would clarify that the provision is mandatory.

Equipment movement. (§ 250.502)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.723.

Crew instructions. (§ 250.506)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.710.

Well-control fluids, equipment, and operations. (§ 250.514)

Paragraph (d) would be removed and its content would be moved to proposed § 250.720.

What BOP information must I submit? (§ 250.515)

This section would be removed and reserved. The content of this section would be moved to proposed §§ 250.731 and 250.732.

Blowout prevention equipment. (§ 250.516)

This section would be removed and reserved. The content of this section would be moved to proposed §§ 250.730, 250.733, 250.734, 250.735, and 250.736.

Blowout preventer system tests, inspections, and maintenance. (§ 250.517)

This section would be removed and reserved. The content of this section would be moved to proposed §§ 250.711, 250.737, 250.738, 250.739, and 250.746.

Tubing and wellhead equipment. (§ 250.518)

This section would be revised by removing paragraph (b), redesignating the rest of the paragraphs to reflect the removal of paragraph (b), and adding new paragraphs (e) and (f) to clarify packer and bridge plug requirements. The content of paragraph (b) would be moved to proposed § 250.722 and would clarify that these requirements apply to drilling, workover, completion, and abandonment operations.

New paragraph (e) would add packer and bridge plug requirements including: —Adherence to newly incorporated API Spec. 11D1, *Packers and Bridge Plugs*; —Production packer setting depth to allow for a sufficient column of weighted fluid for hydrostatic control of the well; and —Production packer setting depth criteria.

New paragraph (f) would require, in your APM, a description and calculations of how the production packer setting depth was determined.

Subpart F—Oil and Gas Well-Workover Operations

General requirements. (§ 250.600)

This section would be revised to add the requirement to follow the applicable provisions of new Subpart G in addition to Subpart F. With the new development of Subpart G, BSEE is consolidating similar requirements regarding drilling, workover,

completion, and decommissioning activities. It is BSEE's intention to include additional regulations regarding similar operations and equipment in new Subpart G in future regulations.

This section would also be revised to replace the word "shall" with "must." This change would clarify that the provision is mandatory.

Equipment movement. (§ 250.602)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.723.

Crew instructions. (§ 250.606)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.710.

Well-control fluids, equipment, and operations. (§ 250.614)

Paragraph (d) would be removed and its content would be moved to proposed § 250.720.

What BOP information must I submit? (§ 250.615)

This section would be removed and reserved. The content of this section would be moved to proposed §§ 250.731 and 250.732.

Coiled tubing and snubbing operations. (§ 250.616)

The section would be revised by renaming the section heading to "Coiled tubing and snubbing operations," removing paragraphs (a) through (e), and re-designating paragraphs (f) through (h) as (a) through (c). The content of existing paragraphs (a) through (e) would be moved to proposed §§ 250.730 and 250.733 through 250.736.

Blowout preventer system testing, records, and drills. (§ 250.617)

This section would be removed and reserved. The content of this section would be moved to proposed §§ 250.711, 250.737, and 250.746.

What are my BOP inspection and maintenance requirements? (§ 250.618)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.739.

Tubing and wellhead equipment. (§ 250.619)

This section would be revised by removing paragraph (b), redesignating the rest of the paragraphs to reflect the removal of paragraph (b), and adding new paragraphs (e) and (f) to clarify packer and bridge plug requirements. The content of paragraph (b) would be moved to proposed § 250.722.

New paragraph (e) would add packer and bridge plug requirements for when operators pull and reinstall packers and bridge plugs, including:

- Adherence to newly incorporated API Spec. 11D1, *Packers and Bridge Plugs*;
- Production packer setting depth to allow for a sufficient column of weighted fluid for hydrostatic control of the well; and
- Production packer setting depth criteria.

This new paragraph would codify existing BSEE policy to ensure consistent permitting. The incorporation of API Spec. 11D1 would enhance packer and bridge plug installation and ensure conformance to industry specifications and good industry practices not previously covered in BSEE regulations.

New paragraph (f) would require, in the APM, a description and calculation of how the production packer setting depth was determined.

Subpart G—Well Operations and Equipment

This part of the section-by-section will not address any regulatory provisions that BSEE proposes to move without change from existing subparts to the new subpart G because the proposed moves in regulatory text are discussed above. However, this portion of the section-by-section will explain existing language that BSEE proposes to revise or add as new provisions.

General Requirements

What operations and equipment does this subpart cover? (§ 250.700)

This proposed section explains that new Subpart G would apply to drilling, completion, workover, and decommissioning activities and equipment. New Subpart G would contain common requirements for these activities. Every section in Subpart G would be applicable to drilling, completion, workover, and decommissioning activities, unless explicitly stated otherwise.

May I use alternate procedures or equipment during operations? (§ 250.701)

Content in this proposed section is similar to existing § 250.408. This proposed section would explain that operators may seek approval to use alternate procedures or equipment following the process set forth in § 250.141. This section would also specify that the proposed alternate procedures and equipment must be discussed in the APD or APM. This section would make the information in

§ 250.408 applicable to all operations covered by this subpart.

May I obtain departures from these requirements? (§ 250.702)

The content of this proposed section is similar to existing § 250.409. This proposed section would explain that operators may request departures from the regulations in this subpart by using the procedure set forth in § 250.142. Also, this section would clarify what would be required for the departure request. Another addition to this section would require that the departure request be discussed in the APD or APM.

What must I do to keep wells under control? (§ 250.703)

The content of this proposed section was moved from existing § 250.401. Language in this section would be revised to ensure applicability to all operations covered under this subpart, and to require the use of equipment that is designed, tested, and rated for the most extreme conditions to which the equipment will be exposed while in service. This section would also require that personnel be trained according to the provisions of Subparts O and S. These subparts outline minimum training requirements. The BSEE expects personnel performing operations to be trained and knowledgeable of their required actions and duties.

Rig Requirements

What instructions must be given to personnel engaged in well operations? (§ 250.710)

The content of this proposed section was moved from existing §§ 250.462, 250.506, and 250.606. This section would require personnel engaged in well operations to be instructed in safety requirements, possible hazards, and general safety considerations as required by Subpart S, prior to engaging in operations.

This proposed section would clarify that the well-control plan must contain instructions for personnel about the use of each well-control component of the BOP system, and include procedures for shearing pipe and sealing the wellbore in the event of a well control or emergency situation before maximum anticipated surface pressure (MASP) conditions are reached. These changes would establish better proficiency for personnel using well-control equipment.

What are the requirements for well-control drills? (§ 250.711)

The content of this proposed section was moved from existing §§ 250.462,

250.517(f), 250.617(c), and 250.1707(c). This section would add minor revisions to make the requirement applicable to all drilling, completion, workover, and decommissioning operations covered under this subpart. This section would also clarify that the same drill may not be repeated consecutively. These proposed changes would establish better proficiency for personnel using well-control equipment.

What rig unit movements must I report? (§ 250.712)

The content of this proposed section was moved from existing § 250.403 with the following revisions and additions:

Paragraph (a) would be revised to add rig movement reporting requirements for all rig units moving on and off locations. Rig units include MODUs, platform rigs, snubbing units, wire-line units used for non-routine operations, and coiled tubing units. This paragraph would make rig movement reporting requirements applicable to all rigs conducting operations covered under proposed Subpart G. The deadline for notifying the District Manager about rig movements, using the Rig Movement Notification Report (Form BSEE-0144), would increase from 24 to 72 hours. This proposed change would allow BSEE to better anticipate upcoming operations and coordinate applicable permitting.

Paragraph (a)(2) would be revised to clarify that if operators anticipate moving off location less than 72 hours after initially moving onto location, the anticipated movement schedule may be included on Form BSEE-0144. This clarification would be necessary if you have, for example, coiled tubing and batch operations and there is not enough time to submit the rig movement 72 hours in advance. Form BSEE-0144 has been revised from its current version to reflect changes based on the proposed rule. Revised Form BSEE-0144 is included in the Appendix to this proposed rule.

Existing paragraph (c) would be replaced with a new paragraph (c) requiring notifications if a MODU or platform rig is to be warm or cold stacked. The notifications for MODUs or platform rigs would include:

- Where the rig is coming from;
- Location where it would be positioned;
- If it would be manned or unmanned; and
- Any changes in the stacking location.

Proposed paragraph (c) would also allow BSEE to have a better understanding of where MODUs and platform rigs are located in case of

emergency situations possibly affecting surrounding infrastructure.

New paragraph (d) would require notification to the appropriate District Manager of any construction, repairs, or modifications associated with the drilling package made to the MODU or platform rig, prior to resuming operations after stacking.

New paragraph (e) would also require notification to the District Manager if a drilling rig enters OCS waters regarding where the drilling rig is coming from. The BSEE expects that this notification would provide information about the last location where the drilling rig was conducting operations, or the shipyard location if it is coming from a shipyard, for either a new build or repair. This notification would assist BSEE in verifying the location and movement of the rigs. This notification would also help BSEE verify rig fitness and documentation requirements to allow the rig to conduct operations on the OCS as outlined in proposed § 250.713.

New paragraph (f) would clarify that if the anticipated date for initially moving on or off location changes by more than 24 hours, an updated Rig Movement Notification Report (Form BSEE-0144) would be required. This revision would clarify to operators when a revision or update would be required.

What must I provide if I plan to use a mobile offshore drilling unit (MODU) or lift boat for well operations? (§ 250.713)

The content of this proposed section would be moved from existing § 250.417. This section would make the requirements applicable to all operations covered under this subpart.

Revised paragraph (g) would add current monitoring requirements. Current monitoring is discussed in BSEE NTL 2009-G02, *Ocean Current Monitoring*. These proposed changes would help provide better consistency in permits. Upon publication of the final rule, BSEE would rescind BSEE NTL 2009-G02.

Do I have to develop a dropped objects plan? (§ 250.714)

This section would codify some of the language from BSEE NTL 2009-G36, *Using Alternate Compliance in Safety Systems for Subsea Production Operations*, to help avoid prolonged damage to subsea infrastructure and aid operators' and BSEE's response to a dropped object.

This proposed new section would outline the requirements for developing a dropped objects plan. This proposed section would be applicable to all floating rig units in an area with subsea

infrastructure. This section would specify the requirements of a dropped objects plans. The plan would be required to include:

- A description and plot of the path the rig would take while running and pulling the riser;
- A plat showing the location of any subsea wells, production equipment, pipelines, and any other identified debris;
- Modeling of a dropped object's path for various material forms, such as a tubular (*e.g.*, riser or casing) and box (*e.g.*, BOP or tree) with consideration given to metocean conditions;
- A description of communications, procedures, and delegated authorities established with the production host facility to shut-in any active subsea wells, equipment, or pipelines in the event of a dropped object; and
- Any additional information required by the District Manager.

Do I need a global positioning system (GPS) for MODUs and jack-ups? (§ 250.715)

This proposed new section would codify existing BSEE NTL 2013–G01, *Global Positioning System (GPS) for Mobile Offshore Drilling Units (MODUs)*. The proposed requirements for GPSs include:

- Providing a robust and reliable means of monitoring the position and tracking the path in real-time if the MODU or jack-up moves from its location during a severe storm;
- Installing and protecting the tracking system's equipment to minimize the risk of the system being disabled;
- Placing the GPS transponders in different locations for redundancy to minimize risk of system failure;
- Capability of transmitting data for at least 7 days after a storm has passed;
- Recording the GPS location data if the MODU or jack-up is moved off location in the event of a storm; and
- Providing BSEE with real-time access to the MODU or jack-up location data.

The BSEE would use the GPS data in emergency situations to minimize potential damage to the offshore infrastructure.

Well Operations

When and how must I secure a well? (§ 250.720)

The content of this proposed section would be moved from existing §§ 250.402, 250.456(j), 250.514(d), 250.614(d), and 250.1709, and would contain the following revisions and additions:

Paragraph (a) would add that the District Manager must be notified when

operations are interrupted. This paragraph would also add an example to the list of events that would warrant interruption of operations (currently in § 250.402(a)). Specifically, if there is any observed flow outside the well's casing, operators would have to interrupt operations. The requirement to interrupt operations for the additional event of observing flow outside the well's casing would protect against a failure of the well's structural foundation and a possible environmental incident. The requirement to notify the District Manager would give BSEE awareness of interrupted operations and allow for appropriate regulatory response. This paragraph would also require a negative test in accordance with proposed § 250.721 to ensure wellbore and barrier integrity before removing a subsea BOP stack or surface BOP stack on a mudline suspension well.

Paragraph (a)(2) would also clarify that if there is not enough time to install the required barriers or if special circumstances occur, the District Manager may approve alternate procedures or barriers in accordance with § 250.141. Some options that could be considered include the use of:

- Blind or blind-shear rams;
- Pipe rams and an inside BOP (if hydrocarbons are not exposed in the open hole);
- A drill string hang-off tool; and/or
- Storm packers.

This section would help ensure that during the events previously discussed, the well would be properly secured.

New paragraph (b) would be added to consolidate the content of existing §§ 250.456(j), 250.514(d), 250.614(d), and 250.1709.

What are the requirements for pressure testing casing and liners? (§ 250.721)

The content of this proposed section would be moved from existing §§ 250.423 and 250.425, and would include the following revisions and additions:

Paragraph (a) would increase the minimum test pressure specification for conductor casing, excluding subsea wellheads, from 200 psi in existing regulations (§ 250.423(a)(2)) to 250 psi.

Paragraph (b) would require operators to test each drilling liner and liner-lap before any further operations are continued in the well.

Paragraph (c) would contain requirements for testing each production liner and liner-lap.

Paragraph (d) would clarify that the District Manager may approve or require other casing test pressures.

Proposed new paragraph (e) would add the requirement that operators

follow additional pressure test requirements when they plan to produce a well. If a well would be fully cased and cemented, the operator would have to pressure test the well to the maximum anticipated shut-in tubing pressure before perforating the casing or liner. If a well would be an open-hole completion, the operator would have to pressure test the entire well to the maximum anticipated shut-in tubing pressure before drilling the open-hole section of the well.

Proposed paragraph (f) would add a requirement for a PE certification of proposed plans to provide a proper seal if there is an unsatisfactory pressure test.

Proposed paragraph (g) would require a negative pressure test on all wells that use a subsea BOP stack or wells with mudline suspension systems and outline the requirements for those tests.

What are the requirements for prolonged operations in a well? (§ 250.722)

The content of this proposed section would be moved from existing §§ 250.424, 250.518(b), and 250.619(b), with revisions made to clarify the requirements for well integrity for operations continuing longer than 30 days from the previous casing test. If well integrity has deteriorated to a level below minimum safety factors, this section would require repairs or installation of additional casing and subsequent pressure testing, as approved by the District Manager. To obtain approval, a PE certification must be provided showing that he or she reviewed and approved the proposed changes. The results of the pressure test would be submitted to the appropriate District Manager. These changes help ensure a proper wellbore integrity determination to allow operations to continue.

What additional safety measures must I take when I conduct operations on a platform that has producing wells or has other hydrocarbon flow? (§ 250.723)

This proposed section would reflect a combination of existing §§ 250.406, 250.502, and 250.602.

Paragraph (b) would be modified from existing § 250.406(a) to clarify that the emergency shutdown station would be for the production system. This revision would ensure that rig units would be able to shut-in the production system of the host facility.

Paragraphs (d) and (e) would make minor revisions to clarify applicability to all operations covered under proposed Subpart G and to divide the paragraphs to make them easier to read and understand.

What are the real-time monitoring requirements? (§ 250.724)

This proposed new section would include a requirement covering real-time monitoring by onshore personnel of the BOP system, fluid handling system of the rig, and downhole conditions. This section would be added, in part, based on multiple recommendations from various *Deepwater Horizon* investigation reports. Having the real-time data available to onshore personnel would increase the level of oversight throughout operations. Onshore personnel could review data and help rig personnel conduct operations in a safe manner. Also, onshore personnel would be able to assist the rig crew in identifying and evaluating abnormalities or unusual conditions while conducting operations. This section would require that BSEE be provided access to the real-time monitoring facility, upon request. Operators would also be required to record and retain the data at an onshore location for recordkeeping purposes and to make it accessible to BSEE upon request. If real-time monitoring capability is lost during operations, the operator would be required to immediately notify the District Manager, who may require other measures until the real-time monitoring capability is restored.

The BSEE is considering expanding the requirements of this section to other operations, not only those conducted with a subsea BOP or a surface BOP on a floating facility or on any BOP operating in an HPHT environment. The BSEE is specifically soliciting comments on whether the real-time monitoring should be required for all well operations, including shallow water shelf operations. Please provide reasons for your position. If your comment addresses anticipated costs associated with such a requirement, please provide any available supporting data.

Blowout Preventer (BOP) System Requirements

What are the general requirements for BOP systems and system components? (§ 250.730)

This proposed section would reflect a combination of existing §§ 250.416, 250.440, 250.516, 250.616, and 250.1706 and would also include the following revisions and additions:

- Require compliance with API Standard 53, ANSI/API Spec. 6A, ANSI/API Spec. 16A, API Spec. 16C, API Spec. 16D, ANSI/API Spec. 17D, and API Spec. Q1.
- Clarify that the working-pressure rating of each BOP component must exceed the MASP as defined for their operation, such as drilling, completion, or workover. For a subsea BOP, the MASP would be taken at the mudline.
- Add a new performance measure for operators which would require the BOP to be able to meet anticipated wellbore conditions and still be able to perform its expected function of sealing the well.

Proposed paragraph (a) would require compliance with the following API and ANSI/API documents:

API Standard 53—BOP system and components would have to be designed, installed, maintained, inspected, tested, and used according to API Standard 53. The API Standard 53 would be incorporated into the regulations; however, if there is a conflict between API Standard 53 and these regulations, operators would have to follow the requirements of these regulations (*i.e.*, BSEE is requiring that surface BOPs on floating facilities have the same dual shearing requirement as subsea BOPs; API Standard 53 allows for an opt out of this standard with a risk assessment that is not included in the proposed rule). Currently, BSEE regulations only incorporate select sections of API RP 53 (accumulators, maintenance, and inspections). By incorporating new API Standard 53, BSEE would greatly enhance the BOP requirements. As previously discussed in the *Background* section, API Standard 53 is the latest industry consensus standard to update

and enhance BOP requirements. After the *Deepwater Horizon* incident, multiple investigations focused on the BOP stack. Every investigation made multiple recommendations to improve the performance and regulation of BOPs. Industry recognized the need to update the previous edition of API RP 53. During the process of updating API RP 53, industry determined that the document needed more substantive content and needed to be raised from an RP to an industry standard. The current API Standard 53 contains the industry consensus standards concerning engineering and operating practices regarding BOP reliability and use. Included in API Standard 53 is a list of normative references (industry standards) that are indispensable to fully utilizing API Standard 53 and to ensure safe and reliable equipment. The normative references include:

- ANSI/API Spec. 6A, *Specification for Wellhead and Christmas Tree Equipment*;
- API Spec. 16A, *Specification for Drill-through Equipment*;
- ANSI/API Spec. 16C, *Specification for Choke and Kill Systems*;
- API Spec. 16D, *Specification for Control Systems for Drilling Well-control Equipment and Control Systems for Diverter Equipment*; and
- ANSI/API Spec. 17D, *Design and Operation of Subsea Production Systems—Subsea Wellhead and Tree Equipment*.

Sections of these industry standards apply to BOP systems. The BSEE specifically proposes to incorporate these standards into the regulations as applied to BOP systems to emphasize their significance and make clear the industry standards that must be followed. The BSEE is also requesting comments concerning whether any sections of these documents should not be incorporated by reference.

For general reference, the following table shows relevant topics from each of these industry standards. This table is not a complete list of applicable sections, but is intended to show how these sections interact with API Standard 53.

Industry standard	Applicable topics in API standard 53 (but not limited to):
ANSI/API Spec. 6A, Specification for Wellhead and Christmas Tree Equipment;	Flanges and hubs, Bolting and clamps, Gaskets, Choke and kill lines, Equipment marking and storage, Equipment modifications, Maintenance and testing.
API Spec. 16A, Specification for Drill-through Equipment;	Flanges and hubs, Bolting and clamps, Gaskets, Choke and kill lines, Equipment marking and storage, Maintenance and testing.
ANSI/API Spec. 16C, Specification for Choke and Kill Systems;	Choke manifolds, Choke and kill lines.
API Spec. 16D, Specification for Control Systems for Drilling Well-control Equipment and Control Systems for Diverter Equipment;	Control systems, Maintenance and testing. Electro-hydraulic and multiplex control systems, Auxiliary equipment, Accumulators.

Industry standard	Applicable topics in API standard 53 (but not limited to):
ANSI/API Spec. 17D, Design and Operation of Subsea Production Systems — Subsea Wellhead and Tree Equipment;	Flanges and hubs, Bolting and clamps, Choke and kill lines, Equipment marking and storage, Maintenance and testing.

Paragraph (a)(3) would require that pipe and variable bore rams be capable of closing and sealing on drill pipe, workstrings, or tubing under MASP with the proposed regulator settings of the BOP control system. This new paragraph would help ensure the BOP control regulator set points are sufficient to ensure closure and sealing of the pipe rams.

Paragraph (a)(4) would require a current set of approved schematics to be on the rig and at an onshore location. It would also require that if there are any modifications to the BOP or control system that will change your schematics, operations would be suspended until the operator obtains approval of the new schematics from the District Manager.

Paragraph (b) would require that operators design, fabricate, maintain, and repair the BOP system pursuant to the requirements contained in this subpart, OEM recommendations unless otherwise directed by BSEE, and recognized engineering practices. Personnel performing any repair or maintenance would be required to follow any OEM training or certification recommendations unless otherwise directed by BSEE.

Paragraph (c) would adopt the failure reporting procedures contained in certain API documents. The BSEE would add specific time frames for the completion of these procedures consistent with other previously incorporated API standards and add a requirement that BSEE be notified of any changes to operating or repair procedures adopted to address or in response to a failure. This would allow BSEE to notify the industry and international community of any significant safety issues related to equipment design, and potentially prevent future incidents.

Paragraph (d) would require that if an operator plans to use a BOP stack manufactured after the effective date of the final rule, the operator must use one manufactured pursuant to API Spec. Q1, *Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry*. Currently, BSEE uses API Spec. Q1 in association with the manufacture of safety and pollution prevention equipment. The API Spec. Q1 outlines the requirements for development of a quality management

system that provides for continual improvement, emphasizing defect prevention and the reduction of variation. This quality management system facilitates consistent and reliable manufacture. Also added to this section is the option to seek approval to use quality assurance programs other than API Spec. Q1.

The BSEE requests comments concerning whether other industry standards should be incorporated into the regulations that ensure that BOP equipment performs as designed during its service life.

What information must I submit for BOP systems and system components? (§ 250.731)

This proposed section would reflect a combination of existing §§ 250.416, 250.515, 250.615, and 250.1705 with the following revisions and additions:

The introductory text would reflect that the requirements of BOP description submittals would apply to APDs, APMs, and other required submittals. The introductory text would also clarify that the BOP descriptions would not have to be resubmitted with any subsequent permit application or submittal after the initial application that BSEE approved or accepted when the operator moved onto location unless the operator makes changes to what was initially approved or the operator moves off location from that well. This introductory text would also clarify that if the operator is not required to resubmit the BOP information in subsequent applications, then the operator must document why the submittal is not required—in other words, the operator would need to reference the previously approved or accepted application or submittal and state that no changes have been made. The information required under this section would increase the quality of submitted documents and enhance BSEE's review and permitting process.

Paragraph (a) would require submission of the following new BOP descriptions:

- Pressure ratings of BOP equipment;
- Both surface and corresponding subsea pressures for a subsea BOP test;
- Rated capacities of the fluid-gas separator system;
- Control fluid volumes needed to operate each component;

- Control system pressure and regulator settings needed to achieve an effective seal of each ram BOP under MASP;
- Number and volume of accumulator bottles and bottle banks (for subsea BOPs, include both surface and subsea bottles);
- Accumulator pre-charge calculations (for a subsea BOP system, include both the surface and subsea calculations);
- All locking devices; and
- Control fluid volume calculations for the accumulator system (for a subsea BOP system, include both the surface and subsea volumes).

Submission of these descriptions would enhance BSEE's review and understanding of the entire BOP system.

Paragraph (b) would add the following new schematic drawing requirements:

- Labeling the control system alarms and set points;
- Including all locking devices;
- Including control station locations;
- Labeling the type of shear ram(s), size range for variable bore ram(s), size of any fixed ram(s), size of choke and kill lines, and size of subsea BOP gas bleed line(s); and
- Including a cross-section of the riser for a subsea BOP system showing number size, and labeling of all control, supply, choke, and kill lines down to the BOP.

Paragraph (c) would reflect content from existing § 250.416(e) and require submission of the following certifications by a BSEE-approved verification organization verifying that:

- Test data clearly demonstrates the shear ram(s) will shear the drill pipe at the water depth as required in § 250.732;
- The BOP was designed, tested, and maintained to perform at the most extreme anticipated conditions; and
- The accumulator system has sufficient fluid to function the BOP system without assistance from the charging system.

Paragraph (d) would require additional certification if an operator uses a subsea BOP, a BOP in an HPHT environment, or a surface BOP on a floating facility. The certification would include verification of the following:

- The BOP stack is designed for the specific equipment on the rig and for the specific well design;

- The BOP stack has not been compromised or damaged from previous service; and
- The BOP stack will operate in the conditions in which it will be used.

The BSEE is considering expanding the requirements of this paragraph to all BOPs. The BSEE is specifically soliciting comments on whether this certification requirement should be applied to all well operations, including shallow water shelf operations and operations with surface BOPs. Please provide reasons for your position. If your comment addresses anticipated costs associated with such a requirement, please provide any available supporting data.

Paragraph (e) would be entirely new for subsea BOPs. This paragraph would require a listing of the functions with sequences and timing of autoshear, deadman, and emergency disconnect sequence (EDS) systems. These emergency systems were the topic of many *Deepwater Horizon* investigations and multiple associated recommendations. It is BSEE's position that submission of this additional information would improve BSEE's ability to oversee the use of these critical systems.

Paragraph (f) would add a certification requirement stating that the Mechanical Integrity Assessment Report required in proposed § 250.732(d) has been submitted within the past 12 months for a subsea BOP, a BOP being used in an HPHT environment as defined in § 250.807, or a surface BOP on a floating facility.

The items covered under this section have not been routinely submitted to BSEE or obtained by the operators charged with responsibility to maintain well control, and BSEE believes these items are important to fully understand the entire BOP system and to verify that it would perform in an acceptable manner.

What are the BSEE-approved verification organization requirements for BOP systems and system components? (§ 250.732)

This proposed section would reflect a combination of existing §§ 250.416, 250.515, 250.615, and 250.1705, along with new requirements. This proposed section is necessary to ensure that BSEE receives accurate information regarding BOP systems so that BSEE may ensure the system is appropriate for the proposed use. The third-party verification and documentation by a BSEE-approved verification organization would enhance the BSEE review during the permitting process. The objective is to have this equipment

monitored during its entire lifecycle by an independent third-party to verify compliance with BSEE requirements, OEM recommendations, and recognized engineering practices. The BSEE believes that the importance and complexity of BOP systems and the fact that they might be operated at various worldwide locations throughout their service life warrants a thorough and regular assessment of the systems and verification that design, installation, maintenance, inspection, and repair activities are documented and traceable.

The list of approved verification organizations would be limited to those that can clearly demonstrate the capability to perform this comprehensive detailed technical analysis.

Paragraph (a) would clarify that BSEE will maintain a list of BSEE-approved verification organizations, and also outline criteria to become a BSEE-approved verification organization.

Paragraph (b) would be applicable to any operation that requires any type of BOP, and would require verification of shear testing, pressure integrity testing, and calculations for shearing and sealing pressures for all pipe to be used. Each of these verifications must demonstrate outlined specific requirements.

Paragraph (c) would require a special verification process for BOP and related equipment being used in HPHT environments because the design conditions required for an HPHT environment exceed the limits of existing engineering standards. The use of a BSEE-approved verification body would provide BSEE with an additional layer of review and verification at all steps in the development process. The paragraph makes it clear that the operator has the burden of clearly demonstrating the reliability of the equipment through a comprehensive review of the design, testing, and fabrication process.

Paragraph (d) would require an annual submittal of a Mechanical Integrity Assessment Report for a subsea BOP, a BOP used in HPHT environment, or a surface BOP on a floating facility. This paragraph would outline the requirements of a Mechanical Integrity Assessment report.

Paragraph (e) would require operators to make all documentation that supports the requirements of this section available to BSEE upon request.

The BSEE believes that using a third-party to verify the testing and qualification of BOP equipment would ensure consistent results and provide a reasonable assurance of the performance of this equipment. Based on previous

studies available on the Web site of BSEE's Technology Assessment Program (available at: <http://www.bsee.gov/Technology-and-Research/Technology-Assessment-Programs/Index>), BSEE believes that the development of more rigorous industry testing protocols is critical to demonstrating the performance of BOP equipment.

The BSEE requests comments on the following issues associated with this section:

- On the issue of standardized test protocols and whether there are any specific procedures that should be considered for adoption.
- On the importance of applying forces in tension or compression during the actual shearing tests.
- On what criteria should be used to qualify a BSEE-approved verification organization and whether OEMs should be considered for the program.
- On the issue of updating test protocols and criteria used by verification organizations, given the likelihood of future improvements to BOP technology.

What are the requirements for a surface BOP stack? (§ 250.733)

This proposed section would be a combination of existing §§ 250.441, 250.443, 250.516, 250.616, and 250.1706 with the following revisions and additions:

Paragraph (a) would contain revisions clarifying its applicability to all operations covered under Subpart G.

Paragraph (a) would also clarify that the blind-shear rams would have to be able to shear the drill pipe, workstring, tubing, and any electric-, wire-, or slick-line. If the blind-shear ram could not cut and seal electric-, wire-, or slick-line under MASP, an alternative cutting device would be required on the rig floor during operations that require their use, to cut the wire before closing the BOP. This requirement would be necessary to ensure that there are means to cut the wire in the hole, even if it is an external cutting device.

Paragraph (b) would codify BSEE policy and would:

- Clarify that when using a surface BOP on a floating production facility:
- the same BOP requirements apply as in § 250.734(a)(1), and
- a dual bore riser configuration would be required for risers installed after the effective date of this rule before drilling or operating in any hole section or interval where hydrocarbons may be exposed to the well;
- Require risers to meet the design requirements of API RP 2RD;

- Clarify that the annulus between the risers must be monitored during operations;
- Require a description of the monitoring plan in the APD or APM, including how you would secure the well if a leak is detected; and
- Clarify that the inner riser for a dual riser configuration is subject to the requirements for testing the casing or liner.

API Standard 53 does not impose dual shear requirements for surface BOPs on floating facilities; however, this proposed rule would require dual shears. If there is any conflict between the documents incorporated by reference and these regulations, the operator would be required to follow these regulations.

Proposed paragraph (c) would contain content from current § 250.443(c) for surface BOP stacks to contain one side outlet for a choke line and one side outlet for a kill line. There would be a new requirement that the outlet valves must hold pressure from both directions.

Existing § 250.441(d) would not be carried forward to proposed § 250.733 because it is unnecessary to state that the regulations covered under this subpart are required.

Proposed paragraph (d) would contain content from a portion of existing § 250.443(d). An addition, this paragraph would require that the outlet valves must be full-bore, full-opening. This would prevent leaks into and out of the BOP stacks.

Proposed paragraph (e) would require installation of hydraulically operated locks.

Proposed Paragraph (f) would add specific requirements for a surface BOP used in HPHT environments, if operations are suspended to make repairs to any part of the BOP system. The BSEE is considering requiring the same dual shear ram requirements in proposed § 250.734(a)(1) for BOPs used in HPHT environments. The BSEE is requesting comments on requiring dual shear rams for BOPs used in HPHT environments, and how long it would take to comply with the dual shear requirement for BOPs used in HPHT environments. If your comment addresses anticipated costs associated with such a requirement, please provide any available supporting data.

What are the requirements for a subsea BOP system? (§ 250.734)

This proposed section would reflect a combination of existing §§ 250.442, 250.443, 250.516, 250.616, and 250.1706.

Proposed paragraph (a)(1) would require two BOPs equipped with shear rams. This new requirement would correspond to API Standard 53, and would increase the shearing capabilities of a BOP stack. This paragraph would also clarify that both shear rams would have to be able to shear at any point along the tubular body of any drill pipe (excluding tool joints, bottom-hole tools, and bottom hole assemblies, which include heavy-weight pipe or collars), workstring, and tubing, as well as be able to shear the liner casing landing string, shear sub on subsea test tree, and any electric-, wire-, or slick-line in the hole under MASP. At least one shear ram would have to be capable of sealing the wellbore under MASP after shearing. Any non-sealing shear rams would have to be installed below the sealing shear rams. These requirements would help ensure that shearing the pipe and sealing the wellbore could be achieved.

Proposed paragraph (a)(3) would clarify that the accumulator capacity would have to be located subsea to provide closure of the BOP components and operate critical functions in case of a loss of the power fluid connection to the surface. The critical functions and components would be defined as each shear ram, choke and kill side outlet valves, one pipe ram, and lower marine riser package (LMRP) disconnect. This paragraph would also require that the subsea accumulator system have the capability of delivering fluid to each ROV function *i.e.*, flying leads. The accumulator would be required to have dedicated independent bottles for the autoshear, deadman, and EDS systems. The subsea accumulator would have to be capable of performing under MASP. These new requirements would ensure that the subsea accumulators would be able to provide fluid to each ROV function. The reference to API RP 53 in current § 250.442(c) would not be carried forward to the proposed paragraph.

Proposed paragraph (a)(4) would include requirements that the ROV would have to be able to perform critical BOP functions, including opening and closing each shear ram, choke and kill side outlet valves, all pipe rams, and the LMRP disconnect under MASP conditions. This paragraph would also include a new requirement that the ROV panels must be compliant with API RP 17H.

Proposed paragraph (a)(5) would require communication between the ROV crew and the rig personnel familiar with the BOP. This communication would help ROV crews perform proper

operations and better determine appropriate BOP conditions.

Proposed paragraph (a)(6) would include requirements of an autoshear, deadman, and EDS system for dynamically positioned rigs, and autoshear and deadman systems for moored rigs. This paragraph would also require each emergency function to include both shear rams closing under MASP. The sequencing of each emergency function would have to provide for the lower shear ram beginning closure before the upper shear ram would begin closure. Also, the control system for the emergency functions would be required to be a fail-safe design, and each step in the logic would have to be independent of the previous step being completed. These revisions to the emergency functions would help provide the best means to carry out the intended functions. In the past, some BOP systems have only included one shear ram in the emergency functions, and these additions would ensure including both shear rams in those functions.

Proposed paragraph (a)(7) would add acoustic system requirements similar to current § 250.442(f)(3). The revision puts the acoustic system option into its own designated paragraph. It would expand what must be provided to the BSEE District Manager if an acoustic system is to be used for a subsea BOP.

Proposed paragraph (a)(12) would be revised to connect this paragraph to § 250.720(b). This revision would clarify the intent of this existing regulation and ensure that procedures are submitted for review and approval in permits.

Proposed paragraph (a)(14) would revise a current requirements from §§ 250.443(c) and (d), 250.516, 250.616, and 250.1706. The proposed rule would require subsea BOPs to contain two side outlets for the choke line and two side outlets for the kill line. Each side outlet would be required to have two full-bore, full-opening valves. The proposed section would require these valves to be pressure-holding from both directions. This section would also require a side outlet below each sealing shear ram. Operators may have a pipe ram or rams between the shearing ram and side outlet. This would enhance well-control capability for subsea BOPs.

Proposed paragraph (a)(15) would require operators to install a gas bleed line with two valves for the annular preventer. If dual annulars would be installed with one on the LMRP and one on the lower BOP stack, each annular would have to have a gas bleed line. The two valves would need to be able to hold pressure from both directions.

Proposed paragraph (a)(16) would require subsea BOP systems to have mechanisms capable of:

- Positioning the entire pipe, including connection, completely within the area of the shearing blade necessary to ensure shearing would occur any time the shear rams are activated. This mechanism could not be another ram BOP or annular preventer;
- Mitigating compression of the pipe stub between the shearing rams. (This provision was added based upon multiple *Deepwater Horizon* investigation recommendations; the blind shear ram (BSR) could not fully close and seal because the drill pipe was forced to the side of the wellbore and outside of the BSR cutting surface); and
- Monitoring the subsea electronic module batteries in the BOP control pods.

New paragraph (b) would codify BSEE policy and require that if operations are suspended to make repairs to the BOP, operations would have to be stopped at a safe downhole location. This section would also require that before resuming operations, the operator would need to do the following:

- Submit a revised permit with a report from a BSEE-approved verification organization documenting the repairs and that the BOP is fit for service;
- Perform a new BOP test upon relatch; and
- Receive approval from the District Manager.

Paragraph (b) would help BSEE ensure the BOPs have proper verification after repairs and that BSEE would be aware of the repairs.

New paragraph (c) would codify BSEE policy. Additions to this section would provide that if an operator plans to drill a new well with a subsea BOP, the operator does not need to submit with its APD the verifications required by this subpart for the open water drilling operation. However, before drilling out the surface casing, the operator would be required to submit for approval a revised APD, including the third-party verifications required in this subpart. This paragraph would allow operators to perform certain operations prior to verification to facilitate the timing and scheduling of work.

The BSEE is also soliciting specific comments on the following possible additional requirements:

- Under proposed paragraph (a)(1)(ii) of this section, requiring that both shear rams be able to shear the appropriate area for the casing landing string. Also please comment on whether there

would be utility in installing the non-sealing shear ram above the sealing shear ram, and how it would affect the sequence of ram closure;

- Under proposed paragraph (a)(16) of this section, requiring a position indicator for each ram BOP, wellhead connector, and LMRP connector. The position indicator would have to be viewable by the ROV during operations and in the event of a disconnect of the LMRP; and
- Under proposed paragraph (a)(16) of this section, requiring sensing and displaying pressure within the BOP. This mechanism would have to be viewable by the ROV during operations and in the event of a disconnect of the LMRP.

These proposed requirements are in part based on various *Deepwater Horizon* investigation recommendations.³ These proposed requirements would help identify the status of various BOP components under emergency situations to assist in emergency well control. If your comment addresses anticipated costs associated with any of the above requirements, please provide any available supporting data.

The BSEE is also soliciting comments on whether there are other options besides the use of shear rams to provide redundant shearing capability while ensuring the same level of safety and environmental protection.

What associated systems and related equipment must all BOP systems include? (§ 250.735)

This proposed section would reflect a combination of existing §§ 250.441, 250.443, 250.516, 250.616, and 250.1706.

Proposed paragraph (a) would contain content from existing § 250.441(c), with the following changes:

- Clarification that the requirements are for a surface accumulator system;
- Clarification that the system would have to operate all BOP functions, including shearing pipe and sealing the well against MASP without assistance from a charging system; and
- Clarification that these provisions would apply to all BOP systems, not just surface BOP stacks.

This revision would clarify existing regulations and ensure the BOP system

is capable of operating all critical functions.

Proposed paragraph (b) would add that the independent power source must possess sufficient capability to close and hold closed all BOP components under MASP.

Proposed paragraph (e) would add that the kill line must be installed beneath at least one pipe ram.

What are the requirements for choke manifolds, Kelly valves, inside BOPs, and drill string safety valves? (§ 250.736)

This proposed section would reflect a combination of existing §§ 250.444, 250.445, 250.516, 250.616, 250.1707, with minor edits to clarify applicability to all operations covered under this subpart.

What are the BOP system testing requirements? (§ 250.737)

This proposed section would reflect a combination of existing §§ 250.447, 250.448, 250.449, 250.517, 250.617, 250.1707, and be revised as follows:

Proposed paragraph (a) would reorganize pressure testing frequency requirements into one section. A new provision would be added that the District Manager may require more frequent testing for the BOP system if conditions or BOP performance warrant. Additionally, by consolidating the pressure test requirements for drilling, workovers, completions, and decommissioning into one section, BSEE would revise the workover and decommissioning BOP testing frequency to be consistent with the 14-day frequency for drilling and completions. Some operations use the same rigs and BOP systems; therefore, to ensure consistency among different operations involving the same equipment, BSEE proposes harmonizing the requirements for that type of equipment. Also, BOP equipment that meets the new requirements of this proposed rule would perform in a more reliable manner and provide additional assurances that wells can be safely shut-in when necessary. The BSEE requests comments on whether this increase in equipment reliability justifies expanding the workover and decommissioning BOP testing frequency.

Proposed paragraph (b) would add a table to organize pressure testing requirements. Paragraph (b)(1) would be for a low-pressure test, and the required test pressure range would increase 50 psi to be between 250 to 350 psi. Paragraph (b)(2) would add high-pressure test requirements for BSR-type

³ For example, BOP position indicator and display of pressures—National Oil Spill Commission recommendation D4; Centering pipe for shearing—DOI JIT recommendation D6; ROV functions and capabilities—Offshore Energy Safety Advisory Committee recommendation 07; Monitoring Subsea electronic module batteries—DOI JIT recommendation D2.

BOPs, outside of all choke and kill side-outlet valves (and annular gas-bleed valves for subsea BOP), and inside of all choke and kill side-outlet valves below the uppermost ram. Paragraph (b)(3) would add high-pressure test requirements for inside of choke or kill valves (and annular gas bleed valves for subsea BOP) above the uppermost ram BOP and would clarify test pressure procedures.

Proposed paragraph (c) would require that each test must hold pressure for 5 minutes, which must be recorded on a 4-hour chart. This would allow the chart to display enough line curvature length to detect a leak during the test.

Proposed paragraph (d) would be reorganized into a table and additional testing requirements would be added. Revisions to the existing testing requirements would be:

Proposed paragraph (d)(1) would add a reference to the testing requirements in API Standard 53. Operators would be required to follow all testing requirements covered in API Standard 53, unless testing requirements conflict with BSEE regulations, in which case operators would be required to follow BSEE regulations.

Proposed paragraph (d)(2) would add requirements to use water to test a surface BOP system. This paragraph would also require that operators submit test procedures in their APD or APM for District Manager approval and contact the District Manager at least 72 hours prior to beginning the test to allow a BSEE representative to witness testing.

Proposed paragraph (d)(3) would require that operators submit stump test procedures for a subsea BOP system in their APD or APM for District Manager approval and require that stump tests follow the pressure test procedures set forth in paragraphs (b) and (c).

Proposed paragraph (d)(4) would outline the requirements for performing the initial subsea BOP test on the seafloor.

Proposed paragraph (d)(5) would expand testing requirements for two BOP control stations. The operator would be required to designate the control stations as primary and secondary and function-test each station weekly. The control station used to perform the pressure test would be required to be alternated between each pressure test. For a subsea BOP, the operator would be required to rotate the pods between each control station during the weekly function tests and alternate the pod used for pressure testing between each pressure test. If additional control stations are installed, they would have to be tested every 14 days.

Proposed paragraph (d)(7) would be a new requirement to pressure test annular type BOPs against the smallest pipe in use.

Proposed paragraph (d)(10) would be a new requirement to function test BSR BOPs every 14 days. This requirement would align the timing of the function and pressure tests.

Proposed paragraph (d)(12) would expand criteria for ROV testing to include testing and verifying closure capability of all intervention functions of the subsea BOP. These new provisions include requirements that:

- Each ROV must be fully compatible with the BOP stack ROV intervention panels;
- Operators must submit test procedures, including how they will test each ROV intervention function; and
- Operators must document all test results and make them available to BSEE upon request.

Proposed paragraph (d)(13) would expand requirements for function testing autoshear, deadman, and EDS systems on subsea BOPs. The test procedures must be submitted for District Manager approval, and the proposed rule would require that the procedures include:

- Schematics of the circuitry of the system that would be used during an autoshear or deadman event;
- The approved schematics of the BOP control system with the actions and sequence of events that would take place; and
- How the ROV would be used during the well-control operations.

Prior to conducting the test, the well is to be in a secure configuration with appropriate barriers. The testing of the deadman system on the seafloor would have to indicate the discharge pressure of the subsea accumulator system throughout the test. During the initial test of the deadman system, the operator would need to have the ability to quickly disconnect the LMRP. The operators would also have to submit the quick-disconnect procedures with the deadman test procedures in the APD or APM. The BSR(s) would need to be pressure tested according to paragraphs (b) and (c) of this section. The operator would have to include in its procedure a description of how it plans to verify closure of a casing shear ram if installed. All test results would have to be documented and submitted to BSEE upon request.

Proposed paragraph (e) would require that operators notify BSEE at least 72 hours in advance of any shear ram tests in which the operators will shear pipe.

This would allow better scheduling for BSEE personnel to witness these tests.

What must I do in certain situations involving BOP equipment or systems? (§ 250.738)

This proposed section would be a combination of existing §§ 250.451 and 250.517. Additional requirements would be added as follows:

As recommended by the DOI JIT investigation recommendation E2, proposed paragraph (a) would require the operator to notify the District Manager of any problems or irregularities, including leaks, if BOP equipment does not hold the required pressure during testing.

Proposed paragraph (b) would require the operator to receive approval from the District Manager prior to resuming operations after replacing, repairing, or reconfiguring the BOP system. To obtain approval, the operator would have to submit a report from a BSEE-approved verification organization attesting that the BOP system is fit for service. Any repair or replacement parts would have to be manufactured under a quality assurance program and would have to meet or exceed the performance of the original part produced by the OEM.

Proposed paragraph (d) would require the operator to notify the District Manager of any problems or irregularities, including leaks, if a BOP control station or pod does not function properly and suspend operations until the station or pod operates properly.

Proposed paragraph (e) would be revised to clarify that two sets of pipe rams must be capable of sealing around the smaller size pipe to be consistent with §§ 250.733(a) and 250.734(a)(1), which require the capability to close and seal on the tubular body of any drill pipe, workstring, and tubing.

Proposed paragraph (f) would add new requirements if the operator proposes to install casing rams or casing shear rams in a surface BOP stack. The ram bonnets would have to test to the rated working pressure or MASP plus 500 psi and be tested before running casing. The BOP would still need to be capable of sealing the well after the casing is sheared. If the installation would be a change from the approved APM or APD, the operator must notify and receive approval from the District Manager.

Proposed paragraph (i) would require that, after pipe or casing is sheared either intentionally or unintentionally, the operator would have to retrieve, inspect, and test the BOP as well as submit a report to the District Manager from a BSEE-approved verification

body, stating that the BOP is fit to return to service.

Proposed paragraph (j) would add a requirement that an operator must have a minimum of two barriers in place prior to removal of the BOP stack. The District Manager would have to approve the two barriers and may require additional barriers prior to removal. This requirement is consistent with similar requirements in current § 250.420(b)(3), and is necessary to ensure that the well is placed in a safe condition prior to BOP removal.

Proposed paragraph (k) would add new requirements for re-establishing power to a BOP stack after a deadman or autoshear activation. Prior to re-establishing power, the operator would have to examine the system to determine if the possibility exists for the BSR opening immediately upon re-establishing power to the BOP stack. If this is a possibility, the opening function would have to be placed in the block position before power is re-established to the stack. The operator would have to contact the District Manager to receive approval of procedures for re-establishing power and functions prior to latching up the BOP stack or re-establishing power to the stack.

Proposed paragraph (l) would establish requirements for test rams. The initial BOP test after latch-up would have to be done with a test tool, and the wellhead/BOP connection would have to be tested to the maximum ram-test pressure approved for the well in the APD or APM. All hydraulically operated BOP components would have to function as designed during the well connection test.

Proposed paragraph (m) would add requirements for additional well-control equipment that operators may use, but which are not required in this subpart. The operator would have to request approval from the appropriate District Manager, submit a report from a BSEE-approved verification organization on the design and suitability of the equipment for its intended use, and submit any other information required by the District Manager. The District Manager may impose requirements concerning the equipment's capabilities, operation, and testing.

Proposed paragraph (n) would clarify that pipe and variable bore rams that have no current utility and would not be used for well-control purposes would not have to be pressure and function tested, until they are intended to be used during operations. Operators would have to indicate which pipe and variable bore rams meet this criteria in

their APD or APM and label those rams on all BOP control panels.

Proposed paragraph (o) would include new requirements applicable to redundant well-control components in BOP systems that are in addition to components required in Subpart G. If any redundant component fails a test, you must submit a report from a BSEE-approved verification organization that describes the failure and confirms that there is no impact on the BOP that will make it unfit for well-control purposes. This report would have to be submitted to the District Manager, and operators may not resume operations until they receive the District Manager's approval. The District Manager may require operators to submit additional information before approving continued operations.

Proposed paragraph (p) would add new requirements that operators would have to meet if they need to position the bottom hole assembly across the BOP for tripping or any other operations, including:

- Ensuring that the well is stable at least 30 minutes before positioning the bottom hole assembly across the BOP, and
- Including in the well-control plan (required by proposed § 250.710(b)) procedures for immediately removing the bottom hole assembly from across the BOP in the event of a well control or emergency situation before exceeding MASP conditions. This would ensure that the operational conditions would not exceed the BOP design specifications.

What are the BOP maintenance and inspection requirements? (§ 250.739)

This proposed section would reflect a combination of existing §§ 250.446, 250.517, 250.618, and 250.1708 with the following revisions:

Proposed paragraph (a) would add that the BOP maintenance and inspections must meet or exceed OEM recommendations, recognized engineering practices, and industry standards incorporated by reference into the regulations, including all provisions in API Standard 53. In the past, BSEE has only required compliance with select sections of API RP 53. By incorporating the updated edition (API Standard 53), BSEE would increase the overall maintenance and inspection requirements.

Proposed paragraph (b) would be a new requirement that details the procedures for a complete breakdown and inspection of the BOP and every associated component every 5 years. This paragraph would also clarify that the complete breakdown and inspection

may not be performed in phased intervals. Also, during this complete breakdown and inspection, a BSEE-approved verification organization would have to be present documenting the inspection and any problems encountered and produce a detailed report. This independent third-party report would have to be available to BSEE upon request. The BSEE is aware that, in the past, various components of BOP stacks have not had this type of inspection for more than 10 years. However, BSEE feels it is essential to ensure that every component on the BOP stack has a complete breakdown and detailed inspection every 5 years.

Proposed paragraph (c) would revise the subsea BOP inspection requirement to include visual inspection of the wellhead and remove the word "television."

Proposed paragraph (d) would require that the personnel who maintain, inspect, or repair BOPs or other critical components meet the qualifications and training criteria specified by the OEM and that such maintenance, inspection, and repair be undertaken in accordance with recognized engineering practices. This provision is necessary to ensure that any personnel working on BOPs are properly qualified to perform any maintenance, inspections, or repairs.

Proposed paragraph (e) would require that all records be made available to BSEE upon request. This provision would also require operators to ensure, by contract or otherwise, that a rig owner maintains BOP records on the rig for 2 years from the date the records are created or longer if directed by BSEE. Also, all design, maintenance, inspection, and repair records must be maintained at an onshore location for the service life of the equipment.

Records and Reporting

What records must I keep? (§ 250.740)

This proposed section would include content from existing § 250.466 and would make the requirements applicable to all operations covered under this subpart. This section would also include recordkeeping of all tests conducted and real-time monitoring data gathered during operations.

How long must I keep records? (§ 250.741)

This proposed section would contain content from existing § 250.467 with minor edits to clarify applicability to all operations covered under this subpart. This section would also include how long records for real-time monitoring data must be kept.

What well records am I required to submit? (§ 250.742)

This proposed section would contain some content from existing § 250.468. The remainder of the existing § 250.468 would be included in proposed § 250.743.

What are the well activity reporting requirements? (§ 250.743)

This proposed section would include content from existing paragraphs (b) and (c) of existing § 250.468, BSEE NTL 2009–G20, *Standard Reporting Period for the Well Activity Report*, and BSEE NTL 2009–G21, *Standard Conditions of Approval for Well Activities* with the following changes:

Proposed paragraph (a) would clarify the well activity reporting timeframe for the GOM OCS Region as currently set forth in NTL 2009–G20. This new revision would help clarify when to submit the WARs (Form BSEE–0133) and accompanying Form BSEE–0133S, Open Hole Data Report. The District Manager may require more frequent submittal of the WAR on a case-by-case basis.

Proposed paragraph (c) would be revised to include in the WAR, information from NTL 2009–G21 describing the operations conducted, any abnormal or significant events that affect the permitted operation, verbal approvals, the wells as-built drawings, casing fluid weights, shoe tests, test pressures at surface conditions, and status of the well at the end of the reporting period. The final WAR would include the date operations finished. This paragraph would also require describing the returns for casing cementing operations. This data would provide BSEE with accurate information regarding the operations and well conditions and verify the operator's compliance with past approvals.

Upon final publication of this rule, BSEE will rescind any NTLs that are superseded by this section in the final rule.

What are the end of operation reporting requirements? (§ 250.744)

This proposed section would combine provisions from existing §§ 250.465, 250.1712, 250.1717, and NTL 2009–G21, *Standard Conditions of Approval for Well Activities*, and include clarifications concerning the contents of the EOR (Form BSEE–0125). This information would provide BSEE with important well data and provide a better understanding of the operations and well conditions.

What other well records could I be required to submit? (§ 250.745)

This proposed section would reflect content from existing § 250.469.

What are the recordkeeping requirements for casing, liner, and BOP tests, and inspections of BOP systems and marine risers? (§ 250.746)

This proposed section would reflect a combination of existing §§ 250.426, 250.450, 250.517, 250.617, and 250.1707, with the following revisions:

Proposed paragraph (b) would add the requirement for the designated rig or contractor representative (e.g., the offshore installation manager) and pump operator to sign and date the pressure charts and reports as correct in addition to the onsite lessee representative (e.g., the company man).

Proposed paragraph (d) would be clarified that identification of the pods would not apply to coiled tubing and snubbing units.

Proposed paragraph (e) would clarify that any leaks observed during testing or observed from the control station are considered irregularities and would have to be reported to BSEE. Operations would have to be suspended until BSEE grants approval to continue. This revision would allow BSEE to be notified of the BOP irregularities to help determine BOP operability.

Proposed paragraph (f) would add the timeframe for keeping the records for a minimum of 2 years after completion of the operation and require that the records would have to be made available to BSEE upon request. The BSEE would be able to use this data as a tool to verify the operator's compliance with past approvals and regulations.

Subpart P—Sulphur Operations

Well-control drills (§ 250.1612)

This section would update the reference for the drilling crew requirements under proposed § 250.711.

Subpart Q—Decommissioning Activities

What are the general requirements for decommissioning? (§ 250.1703)

This section would be revised as follows:

Paragraph (b) would include a new requirement that all packers and bridge plugs would have to comply with API Spec. 11D1, which would help ensure that packers and bridge plugs conform to design, manufacture, and testing criteria to increase reliability and to ensure appropriate use of the equipment. Currently, BSEE does not have specific guidelines for packers and bridge plugs, and this addition would

help BSEE verify that wells have been properly plugged in accordance with API Spec. 11D1.

Paragraph (f) would be revised to add reference to the requirements of new Subpart G. This would make Subpart G applicable to decommissioning.

When must I submit decommissioning applications and reports? (§ 250.1704)

Paragraph (g) would be revised by removing current paragraphs (g)(2), (g)(4), and (g)(6) and the associated instructions in the third column, as well as by revising the numbering of current paragraphs (g)(3) and (g)(5) to (g)(2) and (g)(3), respectively, and by updating the applicable citations. Proposed paragraph (h) would be added to state the requirements for when to submit the EOR, making it clear when operators would have to submit the EOR versus an APM.

What BOP information must I submit? (§ 250.1705)

This section would be removed and reserved. The content of this section would be moved to proposed §§ 250.731 and 250.732.

Coiled tubing and snubbing operations. (§ 250.1706)

Paragraphs (a) through (e) would be moved to proposed §§ 250.730, 250.733, 250.734, and 250.735. The section heading would be renamed from, *What are the requirements for blowout prevention equipment?* to *Coiled tubing and snubbing operations*. Remaining paragraphs (f) through (h) would be redesignated as (a) through (c).

What are the requirements for blowout preventer system testing, records, and drills? (§ 250.1707)

This section would be removed and reserved. The content of this section would be moved to proposed §§ 250.711, 250.736, 250.737, and 250.746.

What are my BOP inspection and maintenance requirements? (§ 250.1708)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.739.

What are my well-control fluid requirements? (§ 250.1709)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.720.

How must I permanently plug a well? (§ 250.1715)

Paragraph (a)(3)(iii)(B) of this section would be revised to add that a "casing" bridge plug would be set 50 to 100 feet

above the top of the perforated interval. Adding the word “casing,” clarifies the plug requirements for the applicable scenario. The BSEE has been contacted by multiple companies requesting clarification of this type of requirement. The BSEE believes that the proposed addition of “casing” adequately addresses the concerns stated by industry participants and explains the correct intention of this proposed section.

After I permanently plug a well, what information must I submit? (§ 250.1717)

This section would be removed and reserved. The content of this section would be moved to proposed § 250.744.

If I temporarily abandon a well that I plan to re-enter, what must I do? (§ 250.1721)

This section would remove existing paragraph (g) and redesignate paragraph (h) as (g). The content of existing paragraph (g) would be required by proposed § 250.744.

Additional Comments Solicited

In addition to the input previously requested, BSEE requests public comment on the following issues.

(1) Rig Daily Operating Rates

Throughout the proposed rule and corresponding economic analysis, the

BSEE has estimated the daily rig rates and made assumptions based on that estimation. The BSEE is soliciting comments on the appropriateness of the values presented and is further requesting corresponding data to substantiate any comments. The BSEE can use this data to update the values in the final rule. The following chart shows the daily operating costs used within the economic analysis.

Rig type	Estimated daily operating cost
<i>Rigs that utilize a subsea BOP (e.g. drillships, semi-submersibles)</i>	<i>\$1,000,000</i>
<i>Rigs that utilize a surface BOP (e.g. jack-ups, lift boats)</i>	<i>200,000</i>

(2) Failure of Equipment Reporting and Information Dissemination

Several of the standards that are being incorporated by reference include a process for the reporting of failures of equipment back to the OEM. The BSEE proposes to adopt these processes and add a requirement that BSEE be notified of major issues that require a design change. This notification would help to ensure that the domestic and international communities are able to react quickly to address potential safety issues.

Because identical equipment designs are often used by multiple operators, ensuring the timely reporting of failures involving critical equipment can assist in identifying trends and play an important role preventing future incidents. The BSEE believes that a more formalized method of collecting, analyzing, and disseminating failure data is warranted, especially for equipment failures that do not result in a reportable incident. The need for this type of program was clearly demonstrated following the December 2012 failures of certain bolts in the GOM. Subsequent investigations revealed that although these failures had been occurring over a period of years, most of the industry was not aware of the safety issues. Even after safety alerts were issued by BSEE and the OEM, some operators claimed that the amount and quality of data that was released was not sufficient. The BSEE has received comments from the industry stating that legal and commercial barriers discouraged the voluntary reporting of this type of data.

The BSEE requests comments on whether this information should be provided to the agency or a third-party to ensure the timely analysis and wide-spread communication of the data. For example, are there programs in other industries that could serve as a model for reporting failure of OCS equipment? Are there third-party organizations that would be good candidates for collecting and analyzing information and issuing safety alerts? What type of data should be collected and disseminated? How should information on international operations be collected and disseminated?

(3) Maintenance and Training

Preventative and remedial maintenance is critical to maintaining a satisfactory level of reliability during the operational life of critical equipment. A lifecycle management approach toward safety critical equipment is especially important as the industry moves into the development of deepwater and HPHT reservoirs. More rigorous inspection, maintenance, and repair practices and methods may be needed to ensure the reliable performance of this equipment in these environments.

The BSEE requests comments on whether there are any additional standards or practices related to the repair and maintenance of this equipment that should be considered by BSEE. The BSEE has completed a major study related to maintenance, inspection and test activities, and management systems. The BSEE requests information on any work that is being conducted by the industry to develop industry standards concerning

these activities. The BSEE also requests comments on whether there are predictive maintenance techniques or risk-based maintenance approaches that should be used to supplement the proposed requirements.

The proposed regulation requires the use of real-time monitoring systems for operations with a subsea BOP stack or involving HPHT environments. The BSEE requests comments on the use of continuous remote monitoring and diagnostic analysis of critical equipment using condition-based maintenance (CBM). With CBM, critical equipment can be monitored and maintenance actions performed based on information collected through constant real-time monitoring of critical equipment. These systems may provide early warning of potential problems that could be addressed before costly and dangerous catastrophic failures. The BSEE believes that these systems may help to verify the integrity of the overall system during drilling operations in a more timely and efficient manner.

The BSEE believes that it is important that components and replacement parts for critical equipment meet quality design and engineering standards that ensure that this equipment operates safely and as originally designed during its service life. Additionally, the equipment must be repaired and maintained by highly trained personnel that understand the OEM design and repair standards. These requirements are implicit in the Safety and Environmental Management Systems (SEMS) requirements contained in existing BSEE regulations. The BSEE requests comments on what type of training and certification programs

should be required for personnel working on this critical equipment. Are there training and certification programs being used in other industries that can serve as a model for the OCS personnel? How should repairs being performed outside U.S. waters be monitored? Are there any existing oil and gas training and certification programs that should be incorporated into the regulations?

(4) Verification of BOP Performance

The BSEE believes that the proposed requirements would provide the agency with additional assurance related to the overall reliability of equipment in the future. The industry and BSEE currently rely on function and hydrostatic tests to verify the performance of BOP equipment in the field. These tests have traditionally been the primary method of verifying the capability of in-service equipment.

In recent years, the industry has raised concerns related to benefits of pressure and functional testing of subsea BOPs versus the costs and potential operational issues. The BSEE requests comments on the adequacy of the current functional and pressure test requirements in predicting the performance of this equipment in subsequent drilling operations. Under what circumstances or environments should the testing frequency be increased or decreased? Are there additional technologies, processes, or procedures that can be used to supplement existing requirements and provide additional assurances related to the performance of this equipment?

The latest industry study on BOP reliability and testing frequency was submitted to the MMS in 2009. What type of additional research and data collection is needed or has already been conducted to verify the reliability of this equipment? Can the combination of real-time monitoring and condition based maintenance justify reduced pressure testing? Does testing too frequently result in a shorter BOP operational lifespan?

Please provide supporting reasons and data for your responses.

(5) Increased Severing Capability

The BSEE is proposing a variety of requirements that will increase the likelihood that a BOP will be able to sever a drill string in an emergency situation to shut-in the well and prevent a catastrophic blowout.⁴ However, there

are a variety of components in the drill string (e.g., drill collars) that cannot be severed using technology that is currently being used in offshore operations. Accordingly, BSEE is considering including the following requirement in § 250.734 of the final rule for subsea BOPs:

You must install technology that is capable of severing any components of the drill string (excluding drill bits). You must install this technology within 10 years from the publication of the final rule.

Such a severing requirement would provide additional protection against the potential loss of well control by requiring that operators install supplemental technology that ensures all components of a drill string, including those components that cannot be sheared with current shear rams, could be severed in an emergency to allow the well to be safely shut-in. The operator would have the flexibility to develop or select the technology and equipment to accomplish this performance-based requirement. The BSEE is aware of at least one candidate technology that is currently being evaluated and believes that other innovative or improved technologies would be developed to accomplish this objective, if such a requirement is adopted in the final rule. The industry has demonstrated that it has the financial resources and technical expertise to develop the innovative technology needed to explore and produce oil and gas resources in challenging deepwater and HTHP environments.⁵

In addition, BSEE is considering whether to also make this type of

Meeting%20Chairman%20Letter%20to%20BSEE%20101512.pdf.

⁵ For example, soon after the *Deepwater Horizon* incident, several of the largest oil companies created the Marine Well Containment Co., and agreed to spend \$1 billion to develop and build new containment technology for deepwater drilling. See <http://www.npr.org/2011/04/19/135513456/oil-firms-look-to-prove-they-can-contain-spills>. In addition, BP initiated "Project 20K"—a major research and development initiative involving Maersk Drilling and other companies—to develop new technologies, within a decade, for drilling safely in deepwater under HPHT conditions. See <http://www.maersk.com/en/the-maersk-group/about-us/maersk-post/2014-5/pushing-technological-boundaries>. Similarly, McMoran has already invested over \$1.2 billion in deepwater drilling sites in the GOM and is working with researchers and manufacturers to develop heavy duty BOPs and make other necessary technological advances. See <http://www.forbes.com/sites/christopherhelman/2013/05/08/mcmoran-gives-update-on-davy-jones-the-1-billion-ultradeep-well/>; <http://www.spe.org/tech/2012/04/high-pressure-high-temperature-challenges/>. See also <http://www.shell.com/global/aboutshell/major-projects-2/perdido/unlocking-energy.html> (Shell uses innovative, first-of-its-kind technology to produce ultra-deep *Perdido* well).

requirement applicable to surface BOPs in § 250.733 in the final rule. The BSEE is requesting comments on the following issues:

- Please comment on whether BSEE should include a severing provision for subsea BOPs in the final rule, as previously described. If BSEE does so, please address whether that requirement should also apply to surface BOPs, given the number of blowouts involving surface stacks.
- What incentives or other actions could be used to assist in the development and implementation of this technology? What should BSEE's role, if any, be in this development process?
- If BSEE includes a severing provision in the final rule, what would be an appropriate effective date for such a requirement? In particular, please comment on whether 10 years would be appropriate to develop technology that could meet the severing requirement, or whether the timeframe for development of such technology and for compliance with the requirement could be shortened (e.g., to 5 years).

Please provide an explanation and data with your responses.

The BSEE is unable to locate any applicable comparative cost estimates or other data to estimate the labor or other costs to industry that would be associated with the installation of technology capable of severing any components of the drill string (excluding drill bits). Also, assessing or quantifying the potential benefits that could arise from the reduction of risks over the 10-year period covered by the economic analysis for this proposed rule would require additional data.

Accordingly, BSEE is also requesting comments on the following issues associated with this potential severing provision:

- Please provide comments on any costs related to the development and installation of technology that would be needed to satisfy this type of performance-based requirement within 10 years. Assuming the final rule includes such a provision, how should BSEE include such costs in the final economic analysis for this rulemaking, given that the analysis uses a 10-year period to estimate all costs and benefits?
- What would be the costs of developing and installing appropriate technology to meet such a severing requirement in 5 years? If it would not be feasible to comply with this requirement in 5 years, what would be the incremental increase in costs of

⁴ See recommendations of Offshore Energy Safety Advisory Committee, August 2012 meeting, available at: http://www.bsee.gov/uploadedFiles/BSEE/About_BSEE/Public_Engagement/Ocean_Energy_Safety_Advisory_Committee/OESC%20Recommendations%20August%202012%20

any implementation deadline between 5 years and 10 years?

—How much would a severing requirement, whether applicable only to subsea BOPs or to subsea and surface BOPs, reduce the risk or consequences of a blowout? If BSEE includes such a requirement in the final rule, to be effective 10 years after the final rule takes effect, how could BSEE estimate the benefits of such risk reduction given that those benefits would not be realized until after the 10-year economic analysis period used in this proposed rule? If

BSEE included such a severing requirement with a shorter time period for compliance (e.g., 5 years from the final rule effective date), how could BSEE estimate the potential risk reduction benefits?

—Please describe any alternative method (other than the potential severing requirement) to protect against the potential loss of well control. Please discuss whether such an alternative would be more or less costly than the proposed requirement. Please explain your conclusions and provide supporting information.

Appendix

The following appendix will not appear in the Code of Federal Regulations. Appendix A is included in this proposed rule so we may solicit your comments on proposed revisions to an existing form for use in reporting some of the information required in proposed subpart G.

Appendix—Department of the Interior—Form BSEE-0144, “Rig Movement Notification Report.”

RIG MOVEMENT NOTIFICATION REPORT

U. S. Department of the Interior
Bureau of Safety & Environmental Enforcement

OMB Control Number 1014-NEW
OMB Approval Expires: xx/xx/xxxx

Use this form to report the movement (including skids, stacking, and moving in or out of the OCS) of all rig units include MODUs, platform rigs, snubbing units, wire-line units used for non-routine operations, and coiled tubing units. If the rig is moving from one location to another, you may show this by completing the information for both rig departure and rig arrival on the same form. It is preferred by BSEE that the report information be submitted utilizing the BSEE eWell web based system at <https://ewell.BSEE.gov>; or you have the option to e-mail or telefax (see page 2 for contact information) to the appropriate BSEE Office(s) at least 72 hours before you move the rig.

GENERAL INFORMATION

Report Date	Lease Operator		
Rig Name	Rig Type: Barge ___ Coiled Tubing Unit ___ Drill Ship ___ Jackup ___ Platform ___ Snubbing Unit ___ Semisubmersible ___ Submersible ___ Wire-Line Unit ___		
Rig Representative	Rig Telephone Number		

RIG ARRIVAL INFORMATION

Rig Arrival Date	Work Scheduled: Drilling ___ Workover ___ Completion ___ TA ___ PA ___ Other (specify) _____			
Is rig new to OCS? Yes ___ No ___	Location where rig came from: _____			
Well API Number (10 digits)	Well Name	Expected Duration of Well Operations		
Well Surface Location Information	Lease No.	Area Name	Block No.	Latitude (Optional) Longitude (Optional)
Structure Location Information (Optional)	Is Well Adjacent to Structure? Yes ___ No ___	If Yes, Identify Structure		Distance from Structure
Remarks (Include size and extent of the mooring system and number of lighted and unlighted buoys deployed) (Optional)				

RIG DEPARTURE INFORMATION					
Rig Departure Date	Well Status: Completed ___ DSI ___ TA ___ PA ___				
Well API Number (10 digits)	Well Name	Is Rig Being Skidded on the Platform? Yes ___ No ___			
Well Surface Location Information	Lease No.	Area Name	Block No.	Latitude (Optional)	Longitude (Optional)
Area Clearance Information (Optional)	Is Area Clear of Obstructions? Yes ___ No ___		If No, Explain		
Remarks (Include any significant en route movements) (Optional)					
RIG STACKING INFORMATION					
Rig Arrival Date			Rig Departure Date		
Manned (warm)		Un-manned (cold)		Location:	
Any modifications, repairs, or construction: Yes ___ No ___	Date of Modifications, repairs, or construction	Area Name	Block No.	Latitude (Optional)	Longitude (Optional)
Area Clearance Information (Optional)	Is Area Clear of Obstructions? Yes ___ No ___		If No, Explain		
Remarks (Explain any modifications, repairs, or construction.)					

CERTIFICATION: I certify that the information submitted above is complete and accurate to the best of my knowledge. I understand that making a false statement may subject me to criminal penalties under 18 U.S.C. 1001.

Name and Title: _____ Date: _____

BSEE OCS CONTACT INFORMATION			
District/ Region	Telephone	Telefax	E-mail Address
New Orleans District	(504) 734-6740	(504) 734-6741	bsee.new.orleans.district@bsee.gov
Houma District	(985) 853-5884	(985) 879-2738	bsee.houma.district@bsee.gov
Lafayette District	(337) 289-5100	(337) 354-0008	bsee.lafayette.district@bsee.gov
Lake Charles District	(337) 480-4600	(337) 562-2955	bsee.lake.charles.district@bsee.gov
Lake Jackson District	(979) 238-8121	(979) 238-8122	bsee.lake.jackson.district@bsee.gov
Alaska OCS Region	(907) 334-5300	(907) 334-5202	kevin.pendergast@bsee.gov
Pacific OCS Region	(805) 389-7745	(805) 389-7784	john.kaiser@bsee.gov

PAPERWORK REDUCTION ACT of 1995 (PRA) STATEMENT: The PRA (44 U.S.C. 3501 *et seq.*) requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling, sidetracking, completing, reworking, recompleting, and abandoning wells. BSEE uses the information to schedule inspections and verify that equipment and/or procedures are adequate to perform the proposed operations safely. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.197. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for reviewing the instructions, completing and filling out this form is estimated to average 42 minutes per response. This form has been assigned OMB Control Number 1014-NEW. However, this form is also used for activities regulated under 30 CFR 250, subparts D, E, F, P, and Q. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Bureau of Safety and Environmental Enforcement, 45600 Woodland Road, Sterling, VA 20166.

FORM BSEE-0144 (Mo/Yr – Supersedes all previous versions of this form which may not be used). Page 2 of 2

BILLING CODE 4310-VH-C

VI. Derivation Tables

The following tables are intended to provide information about the derivation of proposed requirements in Subparts A, B, D, E, F, proposed G, P, and Q. These tables provide guidance on the following:

—The destination of various current requirements.

—The organization and content of the proposed revisions.

These tables do not provide definitive or exhaustive guidance, and should be used in conjunction with the section-by-section discussion and regulatory text of this proposed rule.

The following sections in 30 CFR part 250, subparts D, E, F, and Q have either been [Removed and/or Reserved] according to the following table.

Subpart	Removed and/or Reserved in 30 CFR Part 250
D	401, 402, 403, 406, 417, 424, 425, 426, 440 through 451, 466 through 469.
E	502, 506, 515 through 517.
F	602, 606, 615, 617, 618.
Q	1705, 1707 through 1709, 1717.

The proposed rule would make changes as outlined in the following table:

Current regulations section	Proposed rule section	Nature of change
Subpart A		
250.102(b)	250.102(b)	Added reference to new subpart G.
NEW	250.107(a)(3), (a)(4); (e)	Added the use of recognized industry practices and BSEE-issued orders.
250.125(a)(2)	250.125(a)(2)	Revised (2) to reflect the redesignation of 250.292(q).
250.198(h)	250.198(h)	Updated citations in (h)(51), (68), (70); removed the RP and added in its place the Standard in (h)(63); added new (h)(89–94).
250.199(e)	250.199(e)	Updated OMB control numbers and reword, for plain language, the reasons BSEE collects the data. And added paragraphs for APDs, APMs, and Subpart G.

Current regulations section	Proposed rule section	Nature of change
Subpart B		
250.292(p) NEW	250.292(q) 250.292(p)	Redesignated. New section that specifies FSHR requirements within the DWOP.
Subpart D		
250.400	250.400	Revised section heading and requirements to encompass General Requirements for drilling and clarify that Subpart G has applicable requirements as well.
250.401	250.703	Removed—similar language found in new Subpart G.
250.402	250.720	Removed—similar language found in new Subpart G.
250.403	250.712	Removed—similar language found in new Subpart G.
250.406	250.723	Removed—similar language found in new Subpart G.
250.411	250.411	Revised to separate the diverter and the BOP descriptions; updating citations.
250.413(g)	250.413(g)	Revised to add the phrase ECD.
250.414	250.414	Revised paragraphs (c), (h), (i); added new paragraphs (j) and (k) to help ensure the well's structural integrity and submission of any additional information required by the District Manager.
250.415(a)	250.415(a)	Revised paragraph (a) for casing information in all sections for each casing interval.
250.416	250.416(a), (b); 250.730; 250.731; 250.732.	Revised to remove only the BOP descriptions in the regulatory text and section heading.
250.417	250.713	Removed—similar language found in new Subpart G.
250.418(g)	250.418(g)	Revised to include a description of how far below the mudline the operator proposes to displace cement in the request for approval; revised citation.
250.420	250.420	Revised the introductory paragraph to include applicable casing and cementing requirements in Subpart G; added new paragraph (a)(6) to require adequate centralization to ensure proper cementation; added new paragraph (b)(4) requiring District Manager approval before installing a different casing than what was approved in the APD; modified paragraph (c) requiring the use of a weighted fluid.
250.421	250.421(b) and (f)	Revised paragraph (b) so casing would have to be set immediately and set above the encountered zone, even if it is before the planned casing point if oil or gas or unexpected formation pressure arises. Revised paragraph (f) to no longer allow liners to be installed as conductor casing.
250.423	250.423	Revised the section heading and removed the pressure testing and negative pressure testing requirements; added clarification about latching mechanisms. Edited the remaining paragraphs of 250.423 for organization.
250.423(a) and (c)	250.721	Removed—similar language found in new Subpart G.
250.424	250.722	Removed—similar language found in new Subpart G.
250.425	250.721	Removed—similar language found in new Subpart G.
250.426	250.746	Removed—similar language found in new Subpart G.
250.427(b)	250.427(b)	Revised paragraph (b) to clarify that operators must maintain two drilling margins.
250.428	250.428	Revised paragraphs (b) through (d). Paragraph (b) requires approval for hole interval drilling depth changes greater than 100 ft. TVD, and the submittal of a PE certification that the certifying PE reviewed and approved the proposed changes; paragraph (c) clarifies requirements when there is any indication of an inadequate cement job; and paragraph (d) clarifies that if there is an inadequate cement job, the District Manager has to review and approve all remedial actions; that the changes to the well program are reviewed, approved, and certified by a PE; and any other requirements of the District Manager. New paragraph (k) adds requirements concerning the use of values on drive pipe during cementing operations.
250.440	250.730	Removed—similar language found in new Subpart G.
250.441	250.733; 250.735	Removed—similar language found in new Subpart G.
250.442	250.734	Removed—similar language found in new Subpart G.
250.443	250.734; 250.735	Removed—similar language found in new Subpart G.
250.443(c) and (d)	250.733	Removed—similar language found in new Subpart G.
250.444	250.736	Removed—similar language found in new Subpart G.
250.445	250.736	Removed—similar language found in new Subpart G.
250.446	250.739	Removed—similar language found in new Subpart G.
250.447	250.737	Removed—similar language found in new Subpart G.
250.448	250.737	Removed—similar language found in new Subpart G.
250.449	250.737	Removed—similar language found in new Subpart G.
250.450	250.746	Removed—similar language found in new Subpart G.
250.451	250.738	Removed—similar language found in new Subpart G.
250.456(k)	250.456(j)	Redesignated.

Current regulations section	Proposed rule section	Nature of change
250.456(j)	250.720	Removed—similar language found in new Subpart G.
NEW	250.462	New section heading and requirements to demonstrate deepwater well containment.
250.462	250.710 and 250.711	Removed heading and requirements for well- control drills—similar language found in new Subpart G.
250.465(b)(3)	250.465(b)(3)	This paragraph was revised to update the citation for the EOR form, BSEE-0125.
250.466	250.740	Removed—similar language found in new Subpart G.
250.467	250.741	Removed—similar language found in new Subpart G.
250.468(a)	250.742	Removed—similar language found in new Subpart G.
250.468(b) and (c)	250.743	Removed—similar language found in new Subpart G.
250.469	250.745	Removed—similar language found in new Subpart G.

Subpart E

250.500	250.500	Revised section heading and requirements to encompass General Requirements and direct compliance with new Subpart G where applicable.
250.502	250.723	Removed—similar language found in new Subpart G.
250.506	250.710	Removed—similar language found in new Subpart G.
250.514(d)	250.720	Removed—similar language found in new Subpart G.
250.515	250.731; 250.732	Removed—similar language found in new Subpart G.
250.516	250.730; 250.733; 250.734; 250.735; 250.736.	Removed—similar language found in new Subpart G.
250.517	250.711; 250.737, 250.738, 250.739; 250.746.	Removed—similar language found in new Subpart G.
250.518	250.518(e), (f)	Removed paragraph (b) and redesignated the remaining paragraphs. Added new paragraphs (e) and (f) to add API Spec. 11D1, packer and bridge plug requirements, and a description of calculations of packer setting depth.
250.518(b)	250.722	Redesignated and revised to include additional requirements for prolonged operations.

Subpart F

250.600	250.600	Revised section heading and requirements to encompass General Requirements and direct compliance with new Subpart G where applicable.
250.602	250.723	Removed—similar language found in new Subpart G.
250.606	250.710	Removed—similar language found in new Subpart G.
250.614(d)	250.720	Removed—similar language found in new Subpart G.
250.615	250.731; 250.732	Removed—similar language found in new Subpart G.
250.616(a) through (e)	250.730; 250.733; 250.734; 250.735; 250.736.	Removed—similar language found in new Subpart G.
250.616(f) through (h)	250.616(a) through (c)	Redesignated with no changes made to regulatory text.
250.617	250.711; 250.737; 250.746	Removed—similar language found in new Subpart G.
250.618	250.739	Removed—similar language found in new Subpart G.
250.619	250.619	Removed paragraph (b) and redesignated the section. Added new paragraphs (e) and (f) to add packers and bridge plug requirements, API Spec. 11D1, and a description of calculations of packer setting depth.
250.619(b)	250.722	Redesignated and revised to include additional requirements for prolonged operations.

New Subpart G**General requirements**

NEW	250.700	New section describing what operations and equipment are subject to the requirements.
250.408	250.701	Similar language pertaining to alternative procedures or equipment.
250.409	250.702	Similar language pertaining to departures.
250.401	250.703	Similar language containing requirements to keep wells under control.

Rig Requirements

250.462; 250.506; 250.606	250.710	Similar language was revised and incorporated into this section about instructions for rig personnel.
250.462; 250.517; 250.617; 250.1707.	250.711	Similar language was revised and incorporated into this section about well-control drills.
250.403	250.712	Similar language was revised and incorporated into this section about rig movement notifications.
250.417	250.713	Similar language was revised and incorporated into this section about MODUs or lift boat requirements for well operations.

Current regulations section	Proposed rule section	Nature of change
NEW	250.714	New section about dropped objects plans.
NEW	250.715	New section about GPS for MODUs and jack-ups.
Well Operations		
250.402; 250.456(j); 250.514(d); 250.614(d); 250.1709.	250.720	Similar language was revised and incorporated into this section about securing a well.
250.423(a), (c); 250.425	250.721	Similar language was revised and incorporated into this section about pressure testing casing and liners.
250.424; 250.518; 250.619	250.722	Similar language was revised and incorporated into this section pertaining to prolonged well operations.
250.406; 250.502; 250.602	250.723	Similar language from 250.406, 250.502, and 250.602 was revised and incorporated into this section relating to safety measures on a platform producing wells or other hydrocarbon flow.
NEW	250.724	New section relating to real-time monitoring requirements.
Blowout Preventer (BOP) System Requirements		
250.416; 250.440; 250.516; 250.616(a) through (e); 250.1706.	250.730	Similar language was revised and incorporated into this section about general requirements for BOP systems and their components.
250.416; 250.515; 250.615; 250.1705.	250.731	Similar language was revised and incorporated into this section about submittal requirements for information about BOP systems and their components.
250.416; 250.515; 250.615; 250.1705.	250.732	Similar language was revised and incorporated into this section relating to third-party information for BOP systems and their components.
250.441; 250.443(c), (d); 250.516; 250.616(a) through (e); 250.1706.	250.733	Similar language was revised and incorporated into this section and new language was added relating to requirements for a surface BOP stack.
250.442; 250.443(c), (d); 250.516; 250.616(a) through (e); 250.1706.	250.734	Similar language was revised and incorporated into this section and new language was added relating to requirements for a subsea BOP system.
250.441; 250.443; 250.516; 250.616; 250.1706.	250.735	Similar language was revised and incorporated to this section and new language was added relating to equipment and systems all BOPs must have.
250.444; 250.445; 250.516; 250.616(a) through (e); 250.1707.	250.736	Similar language was revised and incorporated into this section pertaining to requirements for choke manifolds, kelly valves, inside BOPs, and drill string safety valves.
250.447; 250.448; 250.449; 250.517; 250.617; 250.1707.	250.737	Added new language and similar language was revised and incorporated into this section relating to BOP system testing requirements.
250.451 and 250.517	250.738	Added new language and similar language was revised and incorporated into this section for situations arising involving BOP equipment or systems.
250.446; 250.517; 250.618; 250.1708.	250.739	Similar language was revised and incorporated into this section pertaining to BOP maintenance and inspection requirements.
Records and Reporting		
250.466	250.740	Redesignated and revised the types of records to keep.
250.467	250.741	Redesignated and added records relating to real-time monitoring data.
250.468(a)	250.742	Redesignated.
250.468(b) and (c)	250.743	Redesignated and revised to include more requirements for the well activity reporting.
250.465; 250.1712; 250.1717	250.744	Redesignated and revised to include additional end of operation reporting requirements.
250.469	250.745	Redesignated and revised to update references.
250.426; 250.450; 250.517; 250.617; 250.1707.	250.746	Similar language was revised and incorporated into this section pertaining to record-keeping for casing, liner, and BOP tests.
Subpart P		
250.1612	250.1612	Revised to update references.
Subpart Q		
250.1703	250.1703	Revised paragraph (b) to have new packers and bridge plug requirements, including API Spec. 11D1. Revised paragraph (e); Redesignated existing paragraph (f) as (g); and added a new paragraph (f) to follow the applicable requirements of Subpart G.
250.1704	250.1704	Revised paragraphs (g) and added new paragraph (h) about APMs and EORs.
250.1705	250.731, 250.732	Removed—similar language found in new Subpart G.

Current regulations section	Proposed rule section	Nature of change
250.1706(a) through (e)	250.730; 250.733, 250.734, and 250.735.	Removed—similar language found in new Subpart G.
250.1706(f) through (h)	250.1706(a) through (c)	Revised the section heading; redesignated.
250.1707	250.711, 250.736, 250.737, 250.746.	Removed—similar language found in new Subpart G.
250.1708	250.739	Removed—similar language found in new Subpart G.
250.1709	250.720	Removed—similar language found in new Subpart G.
250.1715(a)(3)(iii)(B)	250.1715(a)(3)(iii)(B)	Added the word “casing.”
250.1717	250.744	Removed—similar language found in new Subpart G.
250.1721(g)	250.744	Removed—similar language found in new Subpart G.
250.1721(h)	250.1721(g)	Redesignated and text remains unchanged.

VII. Procedural Matters

Regulatory Planning and Review (Executive Orders (E.O.) 12866 and 13563)

E.O. 12866 provides that the Office of Information and Regulatory Affairs (OIRA) in the OMB will review all significant rules. To determine if this proposed rulemaking is a significant rule, BSEE had an outside contractor prepare an economic analysis to assess the anticipated costs and potential benefits of the proposed rulemaking. The following discussion summarizes the economic analysis; a complete copy of the economic analysis can be viewed at www.Regulations.gov (use the keyword/ID “BSEE–2015–0002”).

Changes to Federal regulations must undergo several types of economic analyses. First, E.O.s 12866 and 13563 direct agencies to assess the costs and benefits of regulatory alternatives and, if regulation is necessary, to select a regulatory approach that maximizes net benefits (including potential economic, environmental, public health, and safety effects; distributive impacts; and equity). Under E.O. 12866, an agency must determine whether a regulatory action is significant and, therefore, subject to the requirements of the E.O. and review by OMB. Section 3(f) of E.O. 12866 defines a “significant regulatory action” as any regulatory action that is likely to result in a rule that:

- Has an annual effect on the economy of \$100 million or more, or adversely affects in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities (also referred to as “economically significant”);
- Creates serious inconsistency or otherwise interferes with an action taken or planned by another agency;

⁶For example, any approximation of cost would incorporate catastrophic spills such as the *Deepwater Horizon* incident. The cost to BP of cleanup operations for the *Deepwater Horizon* incident has been estimated at more than \$14

—Materially alters the budgetary impacts of entitlement grants, user fees, loan programs, or the rights and obligations of recipients thereof; or

—Raises novel legal or policy issues arising out of legal mandates, the President’s priorities, or the principles set forth in E.O. 12866.

The BSEE has determined that the proposed rule is a significant rulemaking within the definition of E.O. 12866 because the estimated annual costs or benefits would exceed \$100 million in at least 1 year of the 10-year analysis period. Accordingly, OMB has reviewed this proposed regulation.

1. Need for Regulation

As previously explained, BSEE has identified a need to amend the existing well-control regulations to ensure that oil and gas operations on the OCS are conducted in a safe and environmentally responsible manner. In particular, BSEE considers the proposed rule necessary to reduce the likelihood of any oil or gas blowout, which can lead to the loss of life, serious injuries, and harm to the environment. As was evidenced by the *Deepwater Horizon* incident (which began with a blowout at the Macondo well) on April 20, 2010, blowouts can result in catastrophic consequences.⁶ The government and industry conducted multiple investigations to determine the cause of the *Deepwater Horizon* incident; many of these investigations identified BOP performance as a concern. The BSEE convened Federal decision-makers and stakeholders from the OCS industry, academia, and other entities at a public forum on offshore energy safety on May 22, 2012, to discuss ways to address this concern. The investigations and the forum resulted in a set of recommendations to enhance safety and environmental protection of offshore

Developments,” J. Ramseur & C. Hagerty (2014), Congressional Research Office, available at: <http://www.fas.org/sgp/crs/misc/R42942.pdf>.

operations by improving BOP performance.

As the agency charged with oversight of offshore operations conducted on the OCS, BSEE seeks to improve safety and mitigate risks associated with such operations. After careful consideration of the various investigations conducted after the *Deepwater Horizon* incident and industry’s responses to the incident, BSEE has determined that the requirements contained in this proposed rule are critical to address risks associated with offshore operations. BSEE has determined that the well-control regulations needed to be updated to incorporate some of these recommendations. Other recommendations are being studied for consideration in future rulemakings.

The proposed rule would create a new Subpart G in 30 CFR part 250 to consolidate requirements for drilling, completion, workover, and decommissioning operations. Consolidating the requirements would improve efficiency and consistency of the regulations and allow for flexibility in future rulemakings. The proposed rule would also revise provisions in Subparts D, E, F, and Q of part 250 to address concerns raised in the investigations, internally within BSEE, and at the public forum. Finally, the proposed rule would incorporate API Standard 53 to ensure better BOP operability and more robust regulatory oversight.

2. Alternatives

The BSEE has considered three regulatory alternatives:

- (1) Promulgate the requirements contained within the proposed rule, including increasing the BOP testing frequency for workover and decommissioning operations from the current requirement of once every 7 days to the proposed requirement of

Developments,” J. Ramseur & C. Hagerty (2014), Congressional Research Office, available at: <http://www.fas.org/sgp/crs/misc/R42942.pdf>.

once every 14 days. The following chart identifies the BOP testing changes related to Alternative 1:

BOP PRESSURE TESTING

Operation	Current testing frequency	Proposed testing frequency
Drilling/Completions	Once every 14 days	Once every 14 days.
Workover/Decommissioning	Once every 7 days	Once every 14 days.

(2) Promulgate the requirements contained within the proposed rule with a change to the required frequency of BOP pressure testing from the existing regulatory requirements (*i.e.*, once every 7 or 14 days depending upon the type of operation) to once every 21 days for all operations. The following chart

identifies the BOP testing changes related to Alternative 2:

BOP PRESSURE TESTING

Operation	Current testing frequency	Proposed testing frequency (alternative 1)	Alternative 2 testing frequency
Drilling/Completions	Once every 14 days	Once every 14 days	Once every 21 days.
Workover/Decommissioning	Once every 7 days	Once every 14 days	Once every 21 days.*

* Includes change from current 7 days to proposed 14 days

(3) Take no regulatory action and continue to rely on existing well-control regulations in combination with permit conditions, DWOPs, operator prudence, and industry standards.

By taking no regulatory action, BSEE would leave unaddressed most of the concerns and recommendations that were raised⁷ regarding the safety of offshore oil and gas operations and the potential for another event with consequences similar to those of the *Deepwater Horizon* incident.

Alternative 2 was not selected because BSEE is lacking critical data on testing frequency and equipment reliability. This issue may be considered in the final rulemaking if BSEE receives sufficient data to support Alternative 2.

The BSEE has elected to move forward with Alternative 1—the proposed rule—which would incorporate recommendations provided by government, industry, academia and other stakeholders, as well as API Standard 53. In addition to addressing concerns and aligning with industry standards, BSEE is functioning in a prudent capacity with this proposed rule by advancing several of the more critical capabilities beyond current industry standards based on internal knowledge and experience. The

proposed rule would also improve efficiency and consistency of the regulations and allow for flexibility in future rulemakings.

The BSEE is requesting comments on how long it would take to come into compliance with the proposed rule as well as any other alternatives BSEE may reasonably consider, including alternatives to the specific provisions contained in the proposed rule.

3. Economic Analysis

The BSEE’s economic analysis evaluated the expected impacts of the proposed rule compared with the baseline. The baseline refers to current industry practice in accordance with existing regulations, industry permits, DWOPs, and industry standards with which operators already comply.⁸ Impacts that exist as part of the baseline were not considered costs or benefits of the proposed rule. Thus, the cost analysis evaluates only activities and capital investments required by the proposed rule that represent a change from the baseline. These estimated compliance costs are discussed more specifically in the associated full initial regulatory impact analysis (RIA), which can be viewed at www.regulations.gov (use the keyword/ID “BSEE–2015–0002”).

The analysis covers 10 years (2015 through 2024) to ensure it encompasses the significant costs and benefits likely to result from this proposed rule. A 10-

year period was used for this analysis because of the uncertainty associated with predicting industry’s activities and the advancement of technical capabilities beyond 10 years. It is very difficult to predict, plan, or project costs associated with technological innovation due to unknown technological or business constraints that could drive a product into mainstream adoption or into obsolescence. The regulated community itself has difficulty conducting business modeling beyond a 10-year time frame. Over time, the costs associated with a particular new technology may drop because of various supply and demand factors, causing the technology to be more broadly adopted. In other cases, an existing technology may be replaced by a lower-cost alternative as business needs may drive technological innovation. Extrapolating costs and benefits beyond this 10-year time frame would produce more ambiguous results and therefore be disadvantageous in determining actual costs and benefits likely to result from this proposed rule. The BSEE concluded that this 10-year analysis period provides the best overall ability to forecast reliable costs and benefits likely to result from this proposed rule. When summarizing the costs and benefits, we present the estimated annual effects, as well as the 10-year discounted totals using discount rates of 3 and 7 percent, per OMB Circular A–4, “Regulatory Analysis.”

The BSEE welcomes comments on this analysis, including potential sources of data or information on the costs and benefits of this proposed rule. The BSEE quantified and monetized the

⁷ See the DOI JIT report, *REPORT REGARDING THE CAUSES OF THE APRIL 20, 2010 MACONDO WELL BLOWOUT*, September 14, 2011.; The National Commission final report, *DEEP WATER, The Gulf Oil Disaster and the Future of Offshore Drilling*, January 11, 2011; The Chief Counsel for the National Commission report, *Macondo The Gulf Oil Disaster*, February 17, 2011; *National Academy of Engineering* final report, *Macondo Well-Deepwater Horizon Blowout*, December 14, 2011; BSEE public offshore energy safety forum, May 22, 2012.

⁸ BSEE considers compliance with permits, DWOPs, and industry standards to be “self-implementing,” as addressed in Section E.2 of OMB Circular A–4, “Regulatory Analysis” (2003), and thus includes these costs in the baseline.

costs, using 2013 data, of all the provisions in the proposed rule determined to result in a change compared to the baseline, including:

- Additional information in the description of well-drilling design criteria;
- Additional information in the drilling prognosis;
- Prohibition of a liner as conductor casing;
- Additional capping stack testing requirements;
- Additional information in the APM for installed packers;
- Additional information in the APM for pulled and reinstalled packers;
- Rig movement reporting;
- Fitness requirements for MODUs and lift boats;
- Foundation requirements for MODUs and lift boats;
- Monitoring of well operations with a subsea BOP;
- Additional documentation and certification requirements for BOP systems and system components;
- Additional information in the APD, APM, or other submittal for BOP systems and system components;
- Submission of a Mechanical Integrity Assessment Report by a BSEE-approved verification body;
- New surface BOP system requirements;
- New subsea BOP system requirements;
- New surface accumulator system requirements;
- Chart recorders;
- Notification and procedures requirements for testing of surface BOP systems;
- Alternating BOP control station function testing;
- ROV intervention function testing; autoshear, deadman, and EDS function testing on subsea BOPs;
- Approval for well-control equipment not covered in Subpart G;
- Breakdown and inspection of BOP system and components;
- Additional recordkeeping for real-time monitoring; and
- Industry familiarization with the new rule.

The BSEE estimated the benefits derived from time savings associated with § 250.737(d)(10) of the proposed rule and the benefits derived from the reduction in oil spills and fatalities using the incident-reducing potential of the proposed rule as a whole. The largest time savings benefits would result from proposed § 250.737 (d)(10), which would streamline the BOP function testing criteria and increase the

intervals between this testing. Although we also consider benefits from potential reductions in oil spills and reduced fatalities, the time savings benefits of the proposed rule result in benefits greater than the costs of the rule to the extent that those costs could be quantified. In other words, based upon existing available data, the proposed rule is cost-beneficial when only the benefits resulting from time savings are considered.⁹

The same is true of Alternative 2. A larger time savings benefit would result from changing the BOP pressure testing interval for workover and decommissioning from 7 days to 14 days plus increasing the BOP pressure testing interval for all operations (including drilling, completions, workovers, and decommissioning) from 14 days to 21 days. This alternative would result in additional time savings to industry by decreasing the number of required tests per year for operators. This time savings would result in greater net benefits to operators.

We did not, however, include reduced trip time to perform BOP testing in the calculations of savings for Alternative 2.¹⁰ Drilling trip time depends on factors such as well depth, hole size, mud weight, the amount of open hole, hole conditions, surge and swab pressure, borehole deviation, bottom hole assembly configuration, hoisting capacity, type of rigs, and crew efficiency. BSEE is not aware of any analysis of offshore operations that provides reasonable estimates of average trip time that could be used for the purpose of this calculation. In addition, it is common practice in the GOM to perform BOP tests earlier than the required interval whenever operational opportunities become available (*i.e.*, whenever there is no drill pipe across the BOPs due to the need to change drill bits). This practice would reduce the overall benefits from this alternative. BSEE requests comments and data on both of these issues to assist in the assessment of the overall benefits of this alternative.

The proposed rule also would reduce the probability of oil spills, and the

⁹ Moreover, the analysis of Alternatives 1 and 2 did not consider potential benefits related to extended equipment life and reduced well control risks arising from fewer pressure tests and fewer trips out of the hole.

¹⁰ Trip time refers to the time needed to stop drilling or workover operations, remove or raise the drill/work string from the well, and then lower the string back to the bottom of the well to restart operations. A trip is often made to change a dull drill bit and/or to perform the pressure test or BOP test. During some deep drilling situations, the trip time may equal or exceed the on-bottom drilling time.

provisions with the highest costs to industry (such as real-time monitoring of well operations and alternating BOP control station function testing) will have the largest impact on reducing the risk of spills. If the proposed rule reduces the risk of incidents, benefits would result from the avoided costs associated with oil spills related to personal injuries, natural resource damages, lost hydrocarbons, spill containment and cleanup, and lost recreational use and lost profits from commercial fishing. The magnitude of these benefits, however, is dependent on the effectiveness of the proposed rule in reducing the number of incidents, which is uncertain.

To estimate the potential benefits of the proposed rule associated with reducing the risk of incidents, we examined historical data from the BSEE oil spill database, which contains information for spills greater than 10 barrels of oil for the GOM and Pacific regions. Based upon an analysis of the BSEE oil spill database during the period between 1964 and 2010, BSEE identified 27 blowouts associated with oil spills greater than 10 barrels¹¹ and used this data within the economic analysis (*see* the initial RIA for details).¹² Blowouts that resulted in uncontrolled flow of gas, damage to a rig, and/or harm to personnel (but not oil spills over 10 barrels) are not reflected in this analysis.¹³ Accordingly, the benefits and the overall risk reduction associated with this proposed rule may be understated. The BSEE is specifically soliciting comments on any data and costs associated with any blowout that did not result in an oil spill greater than 10 barrels, and how to include that information within the economic analysis.

The actual reduction in the risk of oil spills to be achieved by the proposed rule cannot be determined. Although a sensitivity analysis was conducted for levels of risk reduction from 0 to 20 percent, our economic analysis used a 1 percent risk reduction because it

¹¹ See <http://www.bsee.gov/Inspection-and-Enforcement/Accidents-and-Incidents/Spills/>.

¹² BSEE based the analysis on the historical oil spill database for the period between 1964 and 2010, but recognizes that significant regulatory and technological improvements have taken place since 1964. If BSEE limited the analysis to the period 1988 (when the Department's offshore regulatory program was comprehensively overhauled) through 2010, the potential benefits from this reduction of risk would be substantially greater, due to the impact of the *Deepwater Horizon* costs over such a shorter time period.

¹³ Previous MMS studies indicate a total of 126 blowouts during drilling operations on the OCS between 1971 and 2006. These blowouts resulted in 26 fatalities, 63 injuries, damage to facilities and equipment, and the release of hydrocarbons.

represents BSEE’s best expert judgment of the lower bound of risk reduction that could result from the proposed rule.¹⁴ We multiplied the annual number of spilled barrels of oil (the total number of barrels spilled in the incidents divided by 46.945 years) by 1 percent to estimate the expected annual reduction in barrels of oil spilled associated with the proposed rule.

We then multiplied the annual reduction in spilled barrels of oil by the social and private cost of a spilled barrel of oil, which is estimated at \$3,599 per barrel. This estimate was derived from the Bureau of Ocean Energy Management (BOEM) “Economic Analysis Methodology for the Five Year OCS Oil and Gas Leasing Program for 2012–2017” (2012) (the BOEM Case Study),¹⁵ and includes costs associated with natural resource damages, the value of lost hydrocarbons, and spill cleanup and containment.¹⁶ We used a natural resource damage cost of \$642

per barrel and a cleanup and containment cost of \$2,857 per barrel as estimated for the GOM in the BOEM Case Study. Consistent with the BOEM Case Study, we used a value of lost hydrocarbons per barrel of \$100. The BSEE recognizes the uncertainty associated with projecting the price of oil during the 10-year period of analysis and thus includes a sensitivity analysis in the initial RIA for the price of oil.

In addition to the time savings and risk reduction benefits, the proposed rule has other benefits. Due to difficulties in measuring and monetizing these benefits, BSEE does not offer a quantitative assessment of them. The BSEE has used a conservative approach in the valuation of an oil spill, including only selected costs of such a spill. For example, although the analysis captures the environmental damage associated with a spill, the analysis is limited because it only considers the environmental amenities that

researchers could identify and monetize. Therefore, the resulting benefits of avoiding a spill should be considered as a lower-bound estimate of the true benefit to society that results from decreasing the risk of oil spills.

Exhibit 1 displays the net benefits of the proposed rule under the assumption that the reduction in the risk of incidents is 1 percent. Although the analysis presents these benefit estimates based on our lower bound assumption of potential risk reduction, there is uncertainty around the level of risk reduction the proposed rule would actually achieve. Accordingly, it is reasonably possible that the actual benefits realized from the reductions in spill incidents will be different from those assessed in this analysis. Nonetheless, as discussed above, the proposed rule is cost-justified on the basis of time savings alone.

EXHIBIT 1—NET BENEFITS

[At a 1-percent risk reduction from the proposed rule]¹

Year	Total benefits (alternative 1)	Total benefits (alternative 2)	Total costs	Net benefits (alternative 1)	Net benefits (alternative 2)
2012 dollars/year					
1. 2015	\$153,988,977	\$528,988,977	\$164,862,782	(\$10,873,805)	\$364,126,195
2. 2016	153,988,977	528,988,977	77,431,590	76,557,387	451,557,387
3. 2017	153,988,977	528,988,977	77,431,590	76,557,387	451,557,387
4. 2018	153,988,977	528,988,977	77,431,590	76,557,387	451,557,387
5. 2019	153,988,977	528,988,977	77,431,590	76,557,387	451,557,387
6. 2020	153,988,977	528,988,977	98,931,590	55,057,387	430,057,387
7. 2021	153,988,977	528,988,977	77,431,590	76,557,387	451,557,387
8. 2022	153,988,977	528,988,977	77,431,590	76,557,387	451,557,387
9. 2023	153,988,977	528,988,977	77,431,590	76,557,387	451,557,387
10. 2024	153,988,977	528,988,977	77,431,590	76,557,387	451,557,387
Undiscounted 10-year total	1,539,889,771	5,289,889,771	883,247,090	656,642,682	4,406,642,682
10-Year Total with 3% discounting	1,313,557,210	4,512,383,273	763,397,731	550,159,479	3,748,985,543
10-Year Total with 7% discounting	1,081,554,137	3,715,397,215	639,884,837	441,669,301	3,075,512,378
10-year Average	153,988,977	528,988,977	88,324,709	65,664,268	440,664,268
Annualized with 3% discounting	153,988,977	528,988,977	89,493,503	64,495,474	439,495,474
Annualized with 7% discounting	153,988,977	528,988,977	91,105,205	62,883,772	437,883,772

¹ Totals may not add because of rounding.

4. Sensitivity Analysis

This section presents sensitivity analysis of the potential benefits of the proposed rule that could result from varying the following factors:

(a) The level of risk reduction of oil spills achieved by the proposed rule;

(b) The level of risk reduction of fatalities achieved by the proposed rule; and

(c) The price of a barrel of oil (*i.e.*, the value of lost hydrocarbons).

Exhibit 2 presents the total 10-year benefits and net benefits under a range of possible annual risk reduction levels for oil spills from 0 to 20 percent. The

¹⁴ Several recent studies have estimated the probabilities of blowout failures under a wide range of circumstances. *See, e.g.*, “Blowout Preventer (BOP) Failure Event and Maintenance, Inspection and Test (MIT) Data,” American Bureau of Shipping and ABS Consulting, under BSEE contract M11PC00027 (June 2013); “Deepwater Horizon Blowout Preventer Failure Analysis: Report to the U.S. Chemical Safety and Hazard Investigation Board,” Engineering Services (2014). Given this accumulated knowledge of failure likelihoods, and

analysis of how those likelihoods would be reduced by the proposed rule, BSEE has determined that 1 percent is a reasonable lower-bound of risk reduction that could occur as a result of the proposed rule.

¹⁵ The BOEM Case Study presents seven separate cost categories to estimate the impact of a catastrophic spill, including natural resource damages, as well as impacts on recreation and commercial fishing. The BOEM Case Study is

available at: http://www.boem.gov/uploadedFiles/BOEM/Oil_and_Gas_Energy_Program/Leasing/Five_Year_Program/2012-2017_Five_Year_Program/PPP%20EconMethodology.pdf.

¹⁶ The BOEM Case Study presents per-barrel costs associated with a catastrophic event. We use this estimate because the BOEM Case Study represents a recent estimate for the costs associated with an oil spill that reflects data from the *Deepwater Horizon* incident.

proposed rule is expected to have positive net benefits for the full range of risk reduction levels.

In addition to the time savings and the prevention of oil spills, the

proposed rule is anticipated to reduce the risk of fatalities to rig workers. The oil and gas extraction industry is characterized by a relatively small percentage of the national workforce,

but with a fatality rate that is higher than the rate for most industries.

EXHIBIT 2—NET BENEFITS UNDER DIFFERENT RISK REDUCTION LEVELS ¹

Annual risk reduction (%)	Annual benefits	Benefits (7% discounting)	Benefits (3% discounting)	Net benefits (undiscounted)	Net benefits (7% discounting)	Net benefits (3% discounting)
Total 10-Year						
0	\$0	\$1,053,537,231	\$1,279,530,426	\$616,752,910	\$413,652,394	\$516,132,695
1	3,988,977	1,081,554,137	1,313,557,210	656,642,682	441,669,301	550,159,479
2	7,977,954	1,109,571,044	1,347,583,994	696,532,453	469,686,207	584,186,263
3	11,966,931	1,137,587,950	1,381,610,778	736,422,225	497,703,113	618,213,047
4	15,955,909	1,165,604,856	1,415,637,562	776,311,996	525,720,019	652,239,832
5	19,944,886	1,193,621,762	1,449,664,346	816,201,768	553,736,926	686,266,616
6	23,933,863	1,221,638,669	1,483,691,131	856,091,539	581,753,832	720,293,400
7	27,922,840	1,249,655,575	1,517,717,915	895,981,311	609,770,738	754,320,184
8	31,911,817	1,277,672,481	1,551,744,699	935,871,082	637,787,644	788,346,968
9	35,900,794	1,305,689,387	1,585,771,483	975,760,854	665,804,551	822,373,752
10	39,889,771	1,333,706,294	1,619,798,267	1,015,650,625	693,821,457	856,400,537
11	43,878,749	1,361,723,200	1,653,825,051	1,055,540,397	721,838,363	890,427,321
12	47,867,726	1,389,740,106	1,687,851,836	1,095,430,168	749,855,269	924,454,105
13	51,856,703	1,417,757,012	1,721,878,620	1,135,319,939	777,872,176	958,480,889
14	55,845,680	1,445,773,919	1,755,905,404	1,175,209,711	805,889,082	992,507,673
15	59,834,657	1,473,790,825	1,789,932,188	1,215,099,482	833,905,988	1,026,534,457
16	63,823,634	1,501,807,731	1,823,958,972	1,254,989,254	861,922,894	1,060,561,242
17	67,812,611	1,529,824,637	1,857,985,756	1,294,879,025	889,939,801	1,094,588,026
18	71,801,589	1,557,841,544	1,892,012,541	1,334,768,797	917,956,707	1,128,614,810
19	75,790,566	1,585,858,450	1,926,039,325	1,374,658,568	945,973,613	1,162,641,594
20	79,779,543	1,613,875,356	1,960,066,109	1,414,548,340	973,990,519	1,196,668,378

¹ For Alternative 1, the proposed rule.

Exhibit 3 presents the resulting total 10-year fatality risk reduction benefit across a range of risk reduction values from 0 to 20 percent. The exhibit also presents the undiscounted and discounted 10-year total net benefits when fatality risk reduction is

considered in addition to the benefits of the rule included in the analysis presented above (assuming a 1 percent risk reduction in the probability of incidents involving oil spills). The benefits of occupational risk reduction are usually measured using the value of

a statistical life (VSL). The BSEE used a VSL of \$8.4 million to estimate the avoided costs associated with a reduction in the fatality rate ¹⁷ (see initial RIA for details of VSL calculations).

EXHIBIT 3—MONETIZED BENEFITS FROM AVERTED FATALITIES W/NET BENEFITS ¹

Fatality risk reduction (%)	Fatality risk reduction benefit	Net benefits of proposed rule without fatality risk reduction (at a 1-percent risk reduction)	Net benefits of proposed rule with fatality risk reduction (at a 1-percent risk reduction)		
	Undiscounted		Undiscounted	3% Discounting	7% Discounting
	Undiscounted				
Total 10-year					
0	\$0	\$656,642,682	\$656,642,682	\$550,159,479	\$441,669,301
1	269,142	656,642,682	656,911,824	550,389,063	441,858,335
2	538,285	656,642,682	657,180,967	550,618,647	442,047,369
3	807,427	656,642,682	657,450,109	550,848,231	442,236,403
4	1,076,569	656,642,682	657,719,251	551,077,814	442,425,438
5	1,345,712	656,642,682	657,988,393	551,307,398	442,614,472
6	1,614,854	656,642,682	658,257,536	551,536,982	442,803,506
7	1,883,996	656,642,682	658,526,678	551,766,566	442,992,541

¹⁷ Between 1964 and 2010, there were 27 blowouts with oil spills greater than 10 barrels. Only two of these events resulted in fatalities: the 1984 blowout and the 2010 *Deepwater Horizon* incident that resulted in 4 and 11 fatalities, respectively. Based on the 47-year period from 1964 to 2010, the average number of fatalities was approximately 0.320 annually (15/46.945). Using a

VSL of \$8,423,301, the average value of fatalities is \$2,691,423 per year (0.320 × \$8,423,301). Therefore, each 1 percent reduction in the risk of a fatality results in a risk reduction benefit of \$26,914 (1 percent × \$2,691,423). Note that this calculation likely understates the benefits associated with fatality risk reduction because blowouts that did not result in an oil spill greater than 10 barrels were not

part of the database used for this analysis. Previous MMS studies indicate a total of 126 blowouts during drilling operations on the OCS between 1971 and 2006. These blowouts resulted in 26 fatalities, 63 injuries, damage to facilities and equipment, and the release of hydrocarbons. Accounting for any additional fatalities would increase the fatality risk reduction benefits.

EXHIBIT 3—MONETIZED BENEFITS FROM AVERTED FATALITIES W/NET BENEFITS ¹—Continued

Fatality risk reduction (%)	Fatality risk reduction benefit	Net benefits of proposed rule without fatality risk reduction (at a 1-percent risk reduction)	Net benefits of proposed rule with fatality risk reduction (at a 1-percent risk reduction)		
	Undiscounted		Undiscounted	3% Discounting	7% Discounting
	Undiscounted				
	Total 10-year				
8	2,153,139	656,642,682	658,795,820	551,996,150	443,181,575
9	2,422,281	656,642,682	659,064,963	552,225,734	443,370,609
10	2,691,423	656,642,682	659,334,105	552,455,318	443,559,644
11	2,960,565	656,642,682	659,603,247	552,684,901	443,748,678
12	3,229,708	656,642,682	659,872,390	552,914,485	443,937,712
13	3,498,850	656,642,682	660,141,532	553,144,069	444,126,746
14	3,767,992	656,642,682	660,410,674	553,373,653	444,315,781
15	4,037,135	656,642,682	660,679,817	553,603,237	444,504,815
16	4,306,277	656,642,682	660,948,959	553,832,821	444,693,849
17	4,575,419	656,642,682	661,218,101	554,062,405	444,882,884
18	4,844,562	656,642,682	661,487,244	554,291,988	445,071,918
19	5,113,704	656,642,682	661,756,386	554,521,572	445,260,952
20	5,382,846	656,642,682	662,025,528	554,751,156	445,449,986

¹ For Alternative 1, the proposed rule.

As an additional sensitivity analysis, we estimated the net benefits of the proposed rule for different assumptions regarding the value of lost hydrocarbons. In the analysis presented above, BSEE used \$100 per barrel for the

value of lost hydrocarbons in the event of a spill. To reflect the fluctuations in the price of a barrel of oil that may occur during the 10-year analysis period, we also estimated the net benefits of the proposed rule for two

alternative price scenarios: \$50/barrel and \$130/barrel. Exhibit 4 presents the results, which indicate that the price of oil has a very limited impact on the net benefits of the proposed rule.

EXHIBIT 4—NET BENEFITS UNDER THREE OIL PRICE SCENARIOS

[At a 1-percent risk reduction from the proposed rule]

Year	\$50/barrel	\$100/barrel	\$130/barrel
	(2012 dollars/year)		
1. 2015	(\$10,928,596)	(\$10,873,805)	(\$10,840,931)
2. 2016	76,502,597	76,557,387	76,590,262
3. 2017	76,502,597	76,557,387	76,590,262
4. 2018	76,502,597	76,557,387	76,590,262
5. 2019	76,502,597	76,557,387	76,590,262
6. 2020	55,002,597	55,057,387	55,090,262
7. 2021	76,502,597	76,557,387	76,590,262
8. 2022	76,502,597	76,557,387	76,590,262
9. 2023	76,502,597	76,557,387	76,590,262
10. 2024	76,502,597	76,557,387	76,590,262
Undiscounted 10-year total	656,094,777	656,642,682	656,971,425
10-Year Total with 3% discounting	549,692,105	550,159,479	550,439,903
10-Year Total with 7% discounting	441,284,475	441,669,301	441,900,196
10-year Average	65,609,478	65,664,268	65,697,142
Annualized with 3% discounting	64,440,684	64,495,474	64,528,349
Annualized with 7% discounting	62,828,982	62,883,772	62,916,646

BSEE has concluded, after consideration of the impacts of the proposed rule, that the societal benefits would justify the societal costs.

E.O. 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the Nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome

tools for achieving regulatory ends. The E.O. directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. The E.O. 13563 emphasizes further that regulations must be based on the best available science and that

the rulemaking process must allow for public participation and an open exchange of ideas. The BSEE engineers and technical staff have and will continue to work to ensure that this proposed rulemaking is based on sound engineering principles and considers options identified through research, coordination with standards-development organizations, and

interaction with the OCS industry. Thus, we have developed this rule in a manner consistent with these requirements.

In addition, BSEE is considering whether to use probabilistic risk assessment methodology—including event trees, statistical information (e.g., failure rates of valves), probabilities, uncertainties, and assumptions—that potentially could help inform BSEE's final decision on the proposed regulation. Further details about a potential probabilistic risk assessment approach are provided in the initial RIA. The BSEE is interested in the public's views on the potential advantages and disadvantages to development of a probabilistic risk assessment model for this rulemaking. We specifically seek comments on the following issues:

(a) What would be the potential advantages and disadvantages if BSEE were to move to risk-informed decisions in this proposed rule through the use of methods such as probabilistic risk assessments and event trees?

(b) Given that there are a significant number of offshore drilling operations with different types of rig construction and drilling plans, if BSEE were to use event trees in risk reduction assessments, how much detail would such event trees need so that they would be representative of the affected operators and best inform stakeholders and decision makers? Commenters should provide examples of benefits and costs of any suggested level of detail and explain why that detail would be appropriate.

(c) Describe any completed, ongoing or planned activities, not associated with BSEE, that would provide information beneficial to the potential development of a probabilistic risk assessment approach for this rulemaking, including any analyses identifying areas of significant risk or uncertainties. If you do so, provide timelines for the activity, if not already completed; indicate whether the activity will be peer-reviewed; and explain how it could be used in the potential development of a probabilistic risk assessment approach.

(d) Describe any other planned or ongoing data collection efforts that could provide relevant information useful in the potential development of probabilistic risk assessment models for offshore oil and gas activities. If there are no such efforts at this time, how could such a data collection program be developed?

(e) What challenges and concerns would there be to industry providing data to inform and help BSEE decide

whether to engage in probabilistic risk assessment modeling for this proposed rule? What are ways that the challenges and concerns could be mitigated?

The BSEE is also requesting comments on other ways to improve this economic analysis. The BSEE is specifically requesting comments on the following issues:

(a) Which provisions of the proposed rule are most, or least, likely to reduce the risk of a well control incident?

(b) For each proposed rule provision:

(1) For what kinds of well control incidents (e.g., hydrocarbon leakage through annulus cement barrier, weather-related incident, collision) would the provision reduce risk?

(2) By what mechanism would the provision reduce risk (e.g., reduction of the rate of failure of a particular technology)?

(c) What risk reduction level (or range of risk reduction levels) would the individual provisions achieve?

Please provide supporting data and studies to support your comments.

Regulatory Flexibility Act

The DOI certifies that this proposed rule is likely to have a significant economic effect on a substantial number of small entities as defined under the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.* (RFA).

The RFA, at 5 U.S.C. 603, requires agencies to prepare a regulatory flexibility analysis to determine whether a regulation would have a significant economic impact on a substantial number of small entities. Further, under the Small Business Regulatory Enforcement Fairness Act of 1996, 5 U.S.C. 801 (SBREFA), an agency is required to produce compliance guidance for small entities if the rule would have a significant economic impact. For the reasons explained in this section, BSEE believes that this proposed rule would likely have a significant economic impact on a substantial number of small entities and, therefore, a regulatory flexibility analysis is required by the RFA. This Initial Regulatory Flexibility Analysis assesses the impact of this proposed rule on small entities, as defined by the applicable Small Business Administration (SBA) size standards.

1. Description of the Reasons That Action by the Agency Is Being Considered

The BSEE identified a need to amend the existing well-control regulations to improve the capability of the oil and gas industry to ensure that oil and gas operations on the OCS are safe and protect the environment. In particular,

BSEE considers the proposed rule necessary to reduce the likelihood of all oil and gas blowouts, which can lead to the loss of life, serious injuries, and harm to the environment. As was evidenced by the *Deepwater Horizon* incident (which began with a blowout at the Macondo well) on April 20, 2010, blowouts can result in catastrophic consequences. Government and industry conducted multiple investigations to determine the cause of the *Deepwater Horizon* incident; many of these investigations identified BOP performance as a concern. The BSEE convened Federal decision-makers and stakeholders from the OCS industry, academia, and other entities at a public forum on offshore energy safety on May 22, 2012, to discuss ways to address this concern. The investigations and the forum resulted in a set of recommendations to improve well-control operations, including BOP performance.

The BSEE determined that the well-control regulations needed to be updated to incorporate some of these recommendations while others are being studied for consideration in future rulemakings. The proposed rule would create a new Subpart G in 30 CFR part 250 to consolidate the requirements for drilling, completion, workover, and decommissioning operations. Consolidating these requirements would improve the efficiency and consistency of the regulations and would allow for flexibility in future rulemakings. The proposed rule would also revise existing provisions throughout Subparts A, B, D, E, F, P, and Q of part 250 to address concerns raised in the *Deepwater Horizon* investigations. Finally, the proposed rule would incorporate API Standard 53 to ensure better BOP performance and operability and more robust regulatory oversight.

2. Description and Estimated Number of Small Entities Regulated

Small entities, as defined by the RFA, consist of small businesses, small organizations, and small governmental jurisdictions. We have not identified any small organizations or small government jurisdictions that the rule will impact, so this analysis focuses on impacts to small businesses (hereafter referred to as "small entities"). A small entity is one that is independently owned and operated and which is not dominant in its field of operation.¹⁸ The definition of small business varies from industry to industry in order to properly reflect industry size differences.

¹⁸ See 5 U.S.C. 601.

The proposed rule would affect operators and holders of Federal oil and gas leases, as well as right-of-way holders, in the OCS. This includes about 130 businesses with active operations. Businesses that operate under this rule fall under the SBA's North American Industry Classification System (NAICS) codes 211111 (Crude Petroleum and Natural Gas Extraction) and 213111 (Drilling Oil and Gas Wells). For these NAICS classifications, a small business is defined as one with fewer than 500 employees. Based on these criteria, approximately 90 (69 percent) of the businesses operating on the OCS are considered small and the rest are considered large businesses. The BSEE considers that a rule has an impact on a "substantial number of small entities" when the total number of small entities impacted by the rule is equal to or exceeds 10 percent of the relevant universe of small entities in a given industry. Therefore, BSEE expects that the proposed rule would affect a substantial number of small entities.

The BSEE is using the estimated 130 businesses based on activity at the time this economic analysis was developed. The 130 businesses represent the best assessment of the total businesses operating in this arena at the time the economic analysis was developed. The BSEE recognizes that this number is a dynamic number and can fluctuate; however, BSEE determined that this number of businesses was appropriate for this rulemaking. The BSEE is requesting comments on the use of the active business numbers, and other ways to quantify the changing number of businesses.

3. Description and Estimate of Compliance Requirements

The BSEE has estimated the incremental costs for small operators, lease holders, and right-of-way holders in the offshore oil and natural gas production industry. Costs already incurred as a result of current industry practice in accordance with existing regulations, industry permits, DWOPs, and API industry standards with which operators already comply were not considered as costs of this rule because they are part of the baseline.¹⁹ As described in section 5 below, BSEE considered three alternatives. Alternative 2 results in a time-savings benefit to industry but no additional

¹⁹ API standards are developed by industry members and technical experts in open meetings based on a consensus process. They contain the baseline requirements that the industry has deemed necessary to operate in a safe and reliable manner and are often incorporated into commercial contracts between contractors and operators.

costs to industry, and thus the costs presented below are the same for Alternatives 1 and 2. We have estimated the costs of the following provisions of the rule:

- Additional information in the description of well drilling design criteria;
- Additional information in the drilling prognosis;
- Prohibition of a liner as conductor casing;
- Additional capping stack testing requirements;
- Additional information in the APM for installed packers;
- Additional information in the APM for pulled and reinstalled packers;
- Rig movement reporting;
- Fitness requirements for MODUs and lift boats;
- Foundation requirements for MODUs and lift boats;
- Monitoring of well operations with a subsea BOP;
- Additional documentation and verification requirements for BOP systems and system components;
- Additional information in the APD, APM, or other submittal for BOP systems and system components;
- Submission by the operator of a Mechanical Integrity Assessment Report completed by a BSEE-approved verification organization;
- New surface BOP system requirements;
- New subsea BOP system requirements;
- New surface accumulator system requirements;
- Chart recorders;
- Notification and procedure requirements for testing of surface BOP systems;
- Alternating BOP control station function testing;
- ROV intervention function testing;
- Autoshear, deadman, and EDS function testing on subsea BOPs;
- Approval for well-control equipment not covered in Subpart G;
- Breakdown and inspection of BOP system and components;
- Additional recordkeeping for real-time monitoring; and
- Industry familiarization with the new rule.

These requirements and their associated costs to the OCS industry and government are presented in the sections below.²⁰

(a) Additional information in the description of well drilling design criteria.

²⁰ Sums presented in the sections below may not equal the sums of the costs identified in this section because of rounding.

Section 250.413(g) of the proposed rule would require information on the ECD to be included in the description of the well drilling design criteria. The ECD is an important parameter in avoiding fracturing the formation or compromising the casing shoe integrity, which could lead to erratic pressures and uncontrolled flows (e.g., formation kicks) emanating from a well reservoir during drilling. This information is necessary to better review the well drilling design and drilling program. The requirement to include information on the ECD in the well drilling design criteria would result in an average annual labor cost to industry of \$218 per entity.²¹

(b) Additional information in the drilling prognosis.

Section 250.414 of the proposed rule would require the OCS industry to provide additional information in the drilling prognosis. New paragraph (j) would require the drilling prognosis to identify the type of wellhead system to be installed with a descriptive schematic, which should include pressure ratings, dimensions, valves, load shoulders, and locking mechanism, if applicable. The requirement to include additional information in the drilling prognosis (submitted as part of the APD) would result in an average annual labor cost to industry of \$54 per entity.²²

(c) Prohibition of a liner as conductor casing.

Section 250.421(f) would be revised to no longer allow a liner to be installed as conductor casing. This would ensure that the drive pipe would not be exposed to wellbore pressures during drilling in subsequent hole sections.

²¹ We assumed that industry staff (mid-level engineer) would spend one hour per well to include the additional information in the well drilling design criteria. Industry already complies with this new requirement as part of its design practice for most wells drilled. To be conservative, however, we assumed that this requirement would result in a new cost for all wells drilled per year (320). We multiplied the number of industry staff hours per well by the average hourly compensation rate for a mid-level industry engineer (\$88.38) and by the average number of wells drilled per year to obtain an average annual labor cost to industry of \$28,282 ($1 \times \88.38×320). We then divided the average annual labor cost by the number of entities (130) to obtain an average annual labor cost per entity of \$218 ($\$28,282 \div 130$).

²² We assumed that industry staff (a mid-level engineer) would spend 0.25 hours to include the additional information in the drilling prognosis for a well. We multiplied the number of industry staff hours per well by the average hourly compensation rate for a mid-level industry engineer (\$88.38) and the average number of wells drilled per year (320) to obtain the average annual labor cost to industry of \$7,070 ($0.25 \times \88.38×320). We then divided the average annual labor cost by the number of entities (130) to obtain an average annual labor cost per entity of \$54 ($\$7,070 \div 130$).

This provision would result in an average annual equipment and labor cost to industry of \$6,115 per entity.²³

(d) Additional capping stack testing requirements.

Proposed § 250.462 would address source control and containment requirements. New paragraph (e)(1) would detail requirements for the testing of capping stacks. New requirements include the function testing of all critical components on a quarterly basis and the pressure testing of pressure holding critical components on a bi-annual basis. These new requirements would help ensure that operators are able to contain a subsea blowout. These new testing requirements would result in an average annual equipment and service cost to industry of \$615 per entity.²⁴

(e) Additional information in the APM for installed packers.

Proposed paragraphs (e) and (f) in § 250.518 would clarify requirements for installed packers and bridge plugs and require additional information in the APM, including descriptions and calculations for determining production packer setting depth. These new requirements would codify existing BSEE policy to ensure consistent permitting. It is expected that operators already comply with the design specifications included in this section because this is the only established industry standard. Thus, the depth setting calculation is the only requirement that would impose a new

cost beyond the current baseline. The required calculations would be submitted for every well that is completed where tubing is installed. The requirement to include additional information in the APM would result in an average annual labor cost to industry of \$44 per entity.²⁵

(f) Additional information in the APM for pulled and reinstalled packers.

In § 250.619, new paragraphs (e) and (f) would clarify requirements for pulled and reinstalled packers and bridge plugs and would require additional descriptions and calculations in the APM regarding production packer setting depth. These new requirements would codify existing BSEE policy to ensure consistent permitting. It is expected that operators already comply with the design specifications included in this section because this is the only established industry standard. The depth setting calculation is the only requirement that would impose a new cost beyond the current baseline. The required calculations would be submitted for every well that is worked over where tubing is pulled and then reinstalled. The requirement to include additional information in the APM would result in an average annual labor cost increase to industry of \$172 per entity.²⁶

(g) Rig movement reporting.

Proposed § 250.712 would list the requirements for reporting movement of rig units to the BSEE District Manager. Paragraph (a) would extend the rig movement reporting requirements to all rig units conducting operations covered under this subpart, including MODUs, platform rigs, snubbing units, wire-line

units used for non-routine operations, and coiled tubing units. Paragraphs (c) and (e) are new and would require notification if a MODU or platform rig is to be warm or cold stacked or if a drilling rig would enter or leave the OCS. Paragraph (f) would be revised to clarify that, if the anticipated date for initially moving on or off location were to change by more than 24 hours, an updated Rig Movement Notification Report would be required.

Currently, rig movement reports are only required for drilling operations, but the proposed rule would require operators to submit rig movement reports for other operations as well, including cases when rigs are stacked or would enter or leave the OCS. These changes would allow BSEE to better anticipate upcoming operations, locate MODUs and platform rigs in case of emergency, and verify rig fitness. The requirement to notify BSEE of rig unit movement would result in an average annual labor cost to industry of \$19 per entity.²⁷

(h) Fitness requirements for MODUs and lift boats.

Proposed § 250.713(a) would add a requirement that operators provide fitness information for a MODU or lift boat for workovers, completions, and decommissioning. Operators must provide information and data to demonstrate the drilling unit's capability to perform at the proposed drilling location. This information must include the most extreme environmental and operational conditions that the unit is designed to withstand, including the minimum air gap necessary for both hurricane and non-hurricane seasons. If sufficient environmental information and data are not available at the time the APD is submitted, the BSEE District Manager may approve the APD, but would require operators to collect and report this information during operations. Under this circumstance, the District Manager would have the right to revoke the approval of the APD, if information collected during operations shows that the drilling unit is not capable of performing at the proposed location. This requirement would result

²³ We estimated that approximately one percent of drilled wells currently have a liner as conductor casing (approximately one percent of 320 wells, or three wells), based on input provided in submittals to BSEE. To calculate the average annual equipment cost, we assumed that the average cost of the casing joints and wellhead per well would be \$65,000. We multiplied the equipment cost per well by the number of affected wells to yield an average equipment cost of \$195,000 ($\$65,000 \times 3$). We assumed that industry staff (rig crew) would spend one day to install the new equipment on a well. We then multiplied the number of industry staff days per well by the average labor cost for a rig crew per day (\$200,000) and by the number of affected wells to obtain an estimated average annual labor cost to industry of \$600,000 ($\$200,000 \times 3$) for this requirement. Summing the equipment and labor costs yields a total average annual cost to industry of \$795,000 for this requirement. We divided the average annual equipment and labor cost by the number of entities (130) to obtain an average annual equipment and labor cost per entity of \$6,115 ($\$795,000 \div 130$).

²⁴ We assumed that the quarterly equipment and service costs of testing for capping stacks would be \$5,000 per test. Additionally, we assumed that 4 capping stacks would be tested quarterly (or a total of 16 annual tests performed). We multiplied the costs per test by the number of annual tests in order to determine a total annual equipment and service cost to industry of \$80,000 ($16 \times \$5,000$). We divided the annual equipment and service cost to industry by the number of entities (130) to obtain an average annual equipment and service cost per entity of \$615 ($\$80,000 \div 130$).

²⁵ We assumed that industry staff (a mid-level engineer) would spend 0.25 hours to include the additional information in the APM for a well. We assumed that APMs would be submitted for an average of 260 wells with installed packers per year. We multiplied the number of industry staff hours per well by the average hourly compensation rate for a mid-level industry engineer (\$88.38) and by the estimated number of wells with installed packers for which an APM would be submitted per year to estimate an average annual labor cost to industry of \$5,745 ($0.25 \times \88.38×260). We divided the average annual labor cost by the number of entities (130) to obtain an average annual labor cost per entity of \$44 ($\$5,745 \div 130$).

²⁶ We assumed that industry staff (a mid-level engineer) would spend 0.25 hours to include the additional information in the APM for a well. We also assumed that APMs would be submitted for an average of 1,010 wells with pulled and reinstalled packers per year. We multiplied the number of industry staff hours per well by the average hourly compensation rate for a mid-level industry engineer (\$88.38) and the estimated number of wells with pulled and reinstalled packers for which an APM would be submitted per year to obtain an average annual labor cost to industry of \$22,316 ($0.25 \times \$88.38 \times 1,010$). We divided the average annual labor cost by the number of entities (130) to obtain an average annual labor cost per entity of \$172 ($\$22,316 \div 130$).

²⁷ We assumed that industry staff (administrative) would spend five minutes (0.08 hours) to submit a movement report and that industry would submit an average of 1,000 movement reports per year. We multiplied the number of industry staff hours per report by the average hourly compensation rate for an administrative staff (\$29.82) and the average number of reports per year to obtain an average annual labor cost to industry of \$2,485 ($0.0833 \times \$29.82 \times 1,000$). We divided the average annual labor cost by the number of entities (130) to obtain an average annual labor cost per entity of \$19 ($\$2,485 \div 130$).

in an average annual labor cost to industry of \$340 per entity.²⁸

(i) Foundation requirements for MODUs and lift boats.

Proposed § 250.713(b) would introduce a requirement for foundation requirements for workovers, completions, and decommissioning. Operators must provide information to show that site-specific soil and oceanographic conditions would be capable of supporting the proposed rig unit. If operators provide sufficient site-specific information in the Exploration Plan (EP), Development and Production Plan (DPP), or Development Operations Coordination Document (DOCD) submitted to BOEM, operators may reference that information. The District Manager may require operators to conduct additional surveys and soil borings before approving the APD, if additional information is needed to make a determination that the conditions would be capable of supporting the rig unit or equipment installed on a subsea wellhead. For moored rigs, operators must submit a plan of the rigs anchor pattern approved in the EP, DPP, or DOCD in the APD or APM. This requirement would result in an average annual labor cost to industry of \$340 per entity.²⁹

(j) Real-time monitoring of well operations.

Proposed § 250.724 is a new section that lists requirements for:

- Monitoring well operations on rigs that have a subsea BOP, surface BOP on a floating facility, and rigs operating in HPHT reservoirs; and
- Storing data at a designated onshore location, as listed in the APD or APM.

In order to comply with this section, the OCS industry would incur annual equipment and labor costs associated

²⁸ We assumed that industry staff (a mid-level engineer) would spend 0.5 hours per APM to provide the additional information and that an average of 1,000 APMs would be affected per year. We multiplied the number of industry staff hours per APM by the average hourly compensation rate for a mid-level industry engineer (\$88.38) and by the estimated number of APMs affected per year to obtain an average annual labor cost to industry of \$44,190 (0.5 × \$88.38 × 1,000). We divided the average annual labor cost by the number of entities (130) to obtain an average annual labor cost per entity of \$340 (\$44,190 ÷ 130).

²⁹ We assumed that industry staff (a mid-level engineer) would spend 0.5 hours per APM to provide the additional information and that an average of 1,000 APMs would be affected per year. We multiplied the number of industry staff hours per APM by the average hourly compensation rate for a mid-level industry engineer (\$88.38) and by the estimated number of APMs affected per year to obtain an average annual labor cost to industry of \$44,190 (0.5 × \$88.38 × 1,000). We divided the average annual labor cost by the number of entities (130) to obtain an average annual labor cost per entity of \$340 (\$44,190 ÷ 130).

with gathering, transmitting, and storing data. The costs associated with these new data collection and storage requirements would include an average annual equipment and labor cost of \$311,538 per entity. The BSEE requests feedback related to the costs of compliance with monitoring of well operations with a subsea BOP.³⁰

(k) Additional documentation and verification requirements for BOP systems and system components.

Proposed § 250.730 would list general requirements for BOP systems and system components and additions to the section would describe new documentation and verification requirements. Proposed § 250.731(c) would require verification by a BSEE-approved verification organization of specified aspects of equipment design, equipment tests, shear tests, and pressure integrity tests; and all certification documentation must be made available to BSEE. Proposed § 250.732(c) would require a comprehensive review by a BSEE-approved verification organization of BOP and related equipment being proposed for use in HPHT service. Proposed § 250.730(d) would require that quality management systems for BOP stacks be certified by an entity that meets the requirements of ISO 17011.

Additionally, operators may submit a request for approval of equipment manufactured under quality assurance programs other than API Spec. Q1. The BSEE may approve such a request, provided the operator submits relevant information about the alternative program. Costs associated with these new documentation and certification requirements would include an average annual equipment and labor cost of \$13,706 per entity. The BSEE requests feedback related to the costs of compliance with these documentation

³⁰ We assumed that the average costs per day and the average operational days per year would be the same for rigs with subsea BOPs and rigs operating in HPHT reservoirs. Additionally, we assumed that a rig operates for 270 days per year (three operations per year and three months per operation) and that the average cost per day to perform continuous monitoring would be \$5,000, including equipment and labor. We estimated that half of the rigs with subsea BOPs already conduct this monitoring. Thus, only half of rigs with subsea BOPs (20 rigs) would incur a new cost to comply with these requirements. Similarly, we assumed that 10 of the rigs operating in HPHT reservoirs would incur a new cost to comply with these requirements. We multiplied the time that the rig is operational per year by the average cost per day to perform monitoring and by the number of affected rigs to obtain an average annual equipment and labor cost to industry of \$40.5 million (270 × \$5,000 × 30). We divided the average annual equipment and labor cost by the number of entities (130) to obtain average annual equipment and labor cost per entity of \$311,538 (\$40,500,000 ÷ 130).

and certification requirements for BOP systems and system components.³¹

(l) Additional information in the APD, APM, or other submittals for BOP systems and system components.

Proposed § 250.731 would list the descriptions of BOP systems and system components that must be included in the applicable APD, APM, or other submittal for a well. Paragraph (a) would require the submittal to include descriptions of the rated capacities for the fluid-gas separator system, control fluid volumes, control system pressure to achieve a seal of each ram BOP, number of accumulator bottles and bottle banks, and control fluid volume calculations for the accumulator system. Paragraph (b) would add schematic drawing requirements, including labeling for the control system alarms and set points, control stations, and riser cross section. New paragraph (e) would require a listing of the functions with sequences and timing of autoshear, deadman, and EDS for subsea BOPs. For subsea BOPs, surface BOPs on a floating facility, and BOPs operating under HPHT conditions, new paragraph (f) would require submission of a certification that a Mechanical Integrity Assessment Report has been submitted within the past 12 months. New paragraph (c) would include a change in required certifications. The paragraph would require submission of certifications from a BSEE approved verification organization (rather than a “qualified third-party”) that:

- Test data would demonstrate that the shear ram(s) would shear the drill

³¹ For proposed § 250.731(c), we assumed that the one-time equipment and service costs to industry would be \$40,000. We estimated that 320 wells would incur a new cost to comply with these requirements. We multiplied the one-time cost of equipment and service by the number of affected wells to obtain the total one-time equipment and service cost to industry of \$12,800,000 (\$40,000 × 320), resulting in an average annual cost of \$1,280,000 to industry. For § 250.732(c), we assumed that the annual costs would be \$50,000, including equipment and service. We estimated that 10 wells would incur a new cost to comply with these requirements. We multiplied the annual cost of equipment and service by the number of affected wells to obtain an average annual equipment and service cost to industry of \$500,000 (\$50,000 × 10). For § 250.730(d), we assumed that a mid-level industry engineer would spend 2 hours to submit a request. We multiplied the compensation rate for a mid-level industry engineer (\$88.38) by the number of hours to complete the submission and then multiplied this annual cost by the total number of wells (10) to determine the annual cost to industry of \$1,768 (2 × \$88.38 × 10). The average annual cost to industry associated with these requirements is \$1,781,768 (\$1,280,000 + \$500,000 + \$1,768). We divided this average annual equipment and labor cost by the number of entities (130) to obtain average annual equipment and labor cost per entity of \$13,706 (\$1,781,768 ÷ 130).

pipe at the water depth (per proposed § 250.732(b)),

- The BOP would be designed, tested, and maintained to perform at the most extreme anticipated conditions; and
- The accumulator systems would have sufficient fluid to function the BOP system without assistance from the charging system.

These proposed requirements would be necessary to enhance BSEE's review of the BOP system and its emergency systems, which were the topic of many of the recommendations of the *Deepwater Horizon* investigation reports. These requirements would be necessary to help BSEE verify that the accumulator system would have sufficient fluid to function the BOP system without assistance from the charging system. The proposed requirements to provide additional documentation about the BOP system and system components in the APD, APM, or other submittal would result in an average annual labor cost to industry of \$218 per entity.³² The BSEE was unable to locate any applicable data or comparative cost estimates, and therefore was unable to determine a definitive cost estimate for the annual costs to industry associated with the change in the required independent third-party verifications referenced in new paragraph (a). The BSEE requests feedback from the public and industry on costs associated with the change in the verification requirements.

(m) Submission of a Mechanical Integrity Assessment Report by a BSEE-approved verification organization.

Proposed § 250.732(d) would include new requirements on the submission of a Mechanical Integrity Assessment Report on the BOP stack and systems. New paragraph (d) would outline the requirements for this report, which must be completed by a BSEE-approved verification organization and submitted by the operator for operations that would require the use of a subsea BOP, a surface BOP on a floating facility, or a BOP that is being used in HPHT operations. Proposed new § 250.731(f) would require certification in the applicable permit stating that this report has been submitted within the past 12 months. The third-party reporting

³² We assumed that industry staff (a mid-level engineer) would spend one hour to include additional information in the APD, APM, or other submittal for a well. We multiplied the number of industry staff hours per well by the average hourly compensation rate for a mid-level industry engineer (\$88.38) and by the average number of wells drilled per year (320) to obtain an average annual labor cost to industry of \$28,282 ($1 \times \88.38×320). We divided the average annual labor cost by the number of entities (130) to obtain an average annual labor cost per entity of \$218 ($\$28,282 \div 130$).

would enhance the BSEE review and permitting process and would ensure that BSEE is aware of repairs or other changes to the operating BOPs. These reporting requirements would result in new costs to industry consisting of capital and labor costs for creating reports and submitting them to BSEE. The analysis estimated an average annual cost to industry of \$37,032 per entity.³³

(n) New surface BOP requirements.

Proposed § 250.733 would include new requirements for surface BOP stacks. New paragraph (e) would require that hydraulically operated locks are installed with surface BOPs. The BSEE was unable to locate any applicable data or comparative cost estimates and therefore was unable to determine a definitive cost estimate for the labor and equipment costs to industry associated with the installation of hydraulically operated locks. The BSEE requests feedback related to the costs of compliance with this new surface BOP stack requirement.

(o) New subsea BOP system requirements.

Proposed § 250.734 would include new requirements for subsea BOP systems, based on recommendations from the *Deepwater Horizon* investigations. Paragraph (a) would require that BOPs be equipped with two shear rams and would outline the requirements for the shear rams. These additions would assist in emergency well-control planning. The BSEE recognizes that the equipment and labor costs associated with these new subsea BOP system requirements would be case-specific. For example, the costs would depend on the age of the rig and BOP system, the BOP system type, and the size of the rig, among other factors.

The costs associated with the shear ram requirements in paragraph (a) would include an average one-time compliance cost to industry of \$384,615 per entity.³⁴ The BSEE welcomes

³³ For capital costs, we assumed an annual cost of \$15,000 for each well which results in an annual capital cost of \$4.8 million ($\$15,000 \times 320$). For labor costs, we assumed that industry staff (a mid-level engineer) would spend a half hour to prepare a report for each well. We multiplied the number of industry staff hours per well by the average hourly compensation rate for a mid-level industry engineer (\$88.38) and by the average number of wells drilled per year (320) to obtain an average annual labor cost to industry of \$14,141 ($0.5 \times \88.38×320). The average annual labor and capital cost to industry, associated with these requirements is \$4,814,141 ($\$4,800,000 + \$14,141$). We divided the average annual labor and capital cost to industry by the number of entities (130) to obtain an average annual labor and capital cost per entity of \$37,032 ($\$4,814,141 \div 130$).

³⁴ API Standard 53 includes the requirements under new paragraph (a) for all rigs with the

feedback related to the costs of compliance with these new technology requirements.

(p) New surface accumulator system requirements.

Proposed § 250.735(a) would list new requirements for the surface accumulator system of a BOP. The surface accumulator system must operate all BOP functions against MASP with 200 psi above pre-charge without use of the charging system. This revision would ensure that the BOP system would be capable of operating all critical functions. The requirement that the surface accumulator system would operate all functions for all BOP systems would result in a one-time equipment and labor cost to industry of \$21,713 per entity.³⁵

(q) Chart recorders.

Proposed § 250.737(c) would address BOP testing and introduce a requirement that each test must hold the required pressure for five minutes while using a four-hour chart. This would allow the chart to detect a leak during the test. This testing requirement would result in a one-time equipment and labor cost to industry of \$1,388 per entity.³⁶

exception of moored rigs. We estimated that 5 moored rigs would be affected and that the one-time capital compliance cost associated with these shear ram requirements would be \$10,000,000 per rig. To calculate the total one-time capital costs to industry, we multiplied the equipment cost per rig by the number of affected rigs to yield a total cost to industry of \$50,000,000 ($\$10,000,000 \times 5$). We divided the average one-time equipment and labor cost by the number of entities (130) to obtain an average one-time cost per entity of \$384,615 ($\$50,000,000 \div 130$).

³⁵ We assumed that the average cost of the additional equipment needed to meet the requirements would be \$25,000 per rig. It is unknown how many rigs already comply; thus, we made a conservative assumption that all rigs would be affected (90 rigs). We multiplied the equipment cost per rig by the number of affected rigs to obtain an estimated one-time equipment cost of \$2.25 million ($\$25,000 \times 90$). For the one-time labor cost to industry, it was estimated that one to three days of industry time would be required per rig to install the new equipment. To be conservative, we assumed that industry staff (a mid-level engineer) would spend 72 hours to install the new equipment on a rig. We multiplied the number of industry staff hours per rig by the average hourly compensation rate for a mid-level industry engineer (\$88.38) and by the number of affected rigs to obtain an estimated one-time labor cost to industry of \$572,702 ($72 \times \88.38×90). Summing the equipment and labor costs resulted in a total one-time cost to industry of \$2,822,708. We divided the one-time equipment and labor cost by the number of entities (130) to obtain a one-time equipment and labor cost per entity of \$21,713 ($\$2,822,708 \div 130$).

³⁶ We assumed that each rig would require a chart recorder for an average cost of \$2,000 per rig. We multiplied the average equipment cost per rig by the total number of rigs (90) to obtain an estimated one-time equipment cost to industry of \$180,000 ($\$2,000 \times 90$). We assumed that industry staff (rig crew) would spend five minutes (0.08 hours) per rig

(r) Notification and procedure requirements for testing of surface BOP systems.

Proposed § 250.737(d)(2) would expand notification and procedure requirements regarding the use of water to test a surface BOP system. This notification and procedure requirement would result in an average annual labor cost to industry of \$41 per entity.³⁷

(s) Alternating BOP control station function testing.

Proposed § 250.737(d)(5) would expand the requirements for function testing BOP control stations. It would require that the operator designate the BOP control stations as primary and secondary and alternate function testing of each station weekly. This testing requirement would result in an average operations cost to industry of \$192,308 per entity.³⁸ The BSEE requests feedback related to the costs of compliance with alternating BOP control station function testing.

(t) ROV intervention function testing.

Proposed § 250.737(d)(12) would include requirements for testing ROV intervention functions to include testing

to install the equipment. We multiplied the number of industry staff hours per rig by the average hourly compensation rate for a rig crew staff (\$56.80) and by the total number of rigs to obtain an estimated one-time labor cost to industry of \$426 ($0.0833 \times \56.80×90). Summing the equipment and labor costs resulted in a total one-time cost to industry of \$180,426. We divided the one-time equipment and labor cost by the number of entities (130) to obtain a one-time equipment and labor cost per entity of \$1,388 ($\$180,426 \div 130$).

³⁷ We assumed that a mid-level industry engineer would spend 1 additional hour on a submittal as a result of these expanded requirements. We multiplied the compensation rate for a mid-level industry engineer (\$88.38) by the number of hours to complete the submission and then multiplied this annual cost by the total number of submittals (60) to determine the annual cost to industry of \$5,303 ($1 \times \88.38×60). We divided the average annual labor cost by the number of entities (130) to obtain an average annual labor cost per entity of \$41 ($\$5,303 \div 130$).

³⁸ We assumed that testing would require 0.5 days per rig per year (two hours every two weeks for three months). Because subsea and surface BOPs rigs have different daily rig operating costs, we performed separate calculations for the costs for subsea and surface BOP rigs. For subsea BOP rigs, we multiplied the time required to conduct the testing per rig by the average daily rig operating cost for subsea BOP rigs (\$1 million) and by the number of subsea BOP rigs (40) for an average annual cost of \$20 million for subsea BOP rigs ($0.5 \times \$1 \text{ million} \times 40$). For surface BOP rigs, we multiplied the time required to conduct the testing per rig by the average daily rig operating cost for surface BOP rigs (\$200,000) and by the number of surface BOP rigs (50) for an average annual cost of \$5 million for surface BOP rigs ($0.5 \times \$200,000 \times 50$). Summing the average annual costs for subsea BOP rigs and surface BOP rigs resulted in an average annual operations cost to industry associated with this provision of \$25 million. We divided the average annual operations cost to industry by the number of entities (130) to obtain an average annual operations cost per entity of \$192,308 ($\$25,000,000 \div 130$).

and verifying the closure of all ROV intervention functions on a subsea BOP. The operator would have to test and verify closure of the selected ram. This testing requirement would result in an average annual operations cost to industry of \$3,205 per entity.³⁹

(u) Autoshear, deadman, and EDS system function testing on subsea BOPs.

Proposed § 250.737(d)(13) would expand the requirements for function testing of autoshear, deadman, and EDSs on subsea BOPs. It would require that the test procedures submitted for BSEE District Manager approval include a schematic of the circuitry of the system, the approved schematics of the BOP control system, and a description of how the ROV would be used during the operation. It would also outline the requirements for the deadman system test, including a requirement that the testing must indicate the discharge pressure of the subsea accumulator system throughout the test (per proposed § 250.737(d)(13)). It would require that the blind-shear rams be tested to verify closure. The operator must document the plan to verify closure of the casing shear ram, if installed, as well as all test results. These documentation and testing requirements would result in an average one-time equipment cost to industry of \$769 per entity and an average annual operations cost of \$38,462 per entity.⁴⁰

(v) Approval for well-control equipment not covered in Subpart G.

Proposed § 250.738 would describe the required actions for specified situations involving BOP equipment or

³⁹ We assumed that it would take five minutes per well to conduct the testing and that 120 wells would be affected (40 subsea BOP rigs with three wells per rig). We multiplied the time diverted for testing in a day 0.003472 (5 min + 60 min + 24 hours) by the daily operating cost per rig (\$1,000,000) and by the estimated number of wells affected per year to obtain an average annual operations cost to industry of \$416,667 ($0.03 \times 120 \times \$1,000,000$). We divided the average annual operations cost by the number of entities (130) to obtain an average annual operations cost per entity of \$3,205 ($\$416,667 \div 130$).

⁴⁰ We assumed that the average cost of the sensing device would be \$2,500 per rig. We multiplied the equipment cost by the total number of subsea BOP rigs (40) to obtain the one-time equipment cost to industry of \$100,000 ($\$2,500 \times 40$). We divided the equipment cost by the number of entities (130) to obtain a one-time equipment cost per entity of \$769 ($\$100,000 \div 130$). We assumed that it would take one hour per well to perform the testing and documentation tasks required by this provision, and that each subsea BOP rig would be affected (40 subsea rigs). We multiplied the time diverted for testing in a day 0.125 (1 hour + 24 hours) by the daily operating cost per rig (\$1,000,000) and by the estimated number of rigs affected per year to obtain an average annual operations cost to industry of \$5 million ($0.125 \times 40 \times \$1,000,000$). We divided the average annual operations cost by the number of entities (130) to obtain an average annual operations cost per entity of \$38,462 ($\$5,000,000 \div 130$).

systems. Paragraphs (b), (i), and (o) would include requirements for reports from verification organizations. Reports previously required to be prepared by a “qualified third-party” under these sections would be required to be prepared by a “BSEE-approved verification organization.” Proposed § 250.738(m) would include a similar change and introduce a requirement that an operator request approval from the BSEE District Manager to use well-control equipment not covered in Subpart G. The operator must submit a report from a BSEE-approved verification organization, as well as any other information required by the District Manager. This approval request requirement would result in an average annual labor cost to industry of approximately \$1 per entity.⁴¹ The BSEE was unable to locate any applicable data or comparative cost estimates and therefore was unable to determine a definitive cost estimate for the annual costs to industry associated with the third-party verification. The BSEE welcomes feedback from the public or industry on costs associated with the third-party verification requirements.

(w) Breakdown and inspection of the BOP system and components.

Proposed § 250.739(b) would introduce a requirement for a complete breakdown and inspection of the BOP and every associated component every 5 years. During this complete breakdown and inspection, a BSEE-approved verification organization must document the inspection and any problems encountered. This BSEE-approved verification organization’s report must be available to BSEE upon request. This additional requirement would be necessary to ensure that the components on the BOP stack are regularly inspected. In the past, BSEE has, in some cases, seen components of BOP stacks go more than 10 years without this type of inspection. This inspection and documentation requirement would result in an average cost to industry to obtain third-party reports of \$165,385 per entity during the year of inspection, which would occur

⁴¹ We assumed that industry staff (a mid-level engineer) would spend 0.5 hours to submit an equipment approval request and report. We also assumed that industry would submit a request and report for an average of two deepwater rigs per year. We multiplied the number of industry staff hours per submission by the average hourly compensation rate for a mid-level industry engineer (\$88.38) and the average number of submissions per year to obtain an average annual labor cost to industry of \$88 ($0.5 \times \88.38×2). We divided the average annual labor cost by the number of entities (130) to obtain an average annual labor cost per entity of \$1 ($\$88 \div 130$).

once every 5 years or twice during the 10-year analysis period.⁴² We assumed that costs would be incurred in year 1 and year 6 of the 10-year analysis period.

(x) Additional recordkeeping for real-time monitoring.

Proposed §§ 250.740(a) and § 250.741(b) would introduce requirements for additional recordkeeping of real-time monitoring data for well operations. These additional records would require an average additional annual labor cost to industry of \$14 per entity.⁴³

(y) Industry familiarization with new regulations.

When the new regulation takes effect, operators would need to read and interpret the rule. Through this review, operators would familiarize themselves with the structure of the new rule and identify any new provisions relevant to their operations. Operators would evaluate whether any new action must be taken to achieve compliance with the

rule. Reviewing the new regulations would require staff time, representing an average one-time labor cost on industry of \$216 per entity.⁴⁴

(z) Total Cost Burden for Small Entities.

The BSEE's calculations indicate that the total cost burden of this proposed rule would be \$6,783,880 per affected small entity over 10 years, which yields an average annual cost of \$678,388, as presented in Exhibit 4. Four provisions comprise approximately 85 percent of the cost to small entities:

- Monitoring of well operations with a subsea BOP;
- Alternating BOP control station function testing;
- Autoshear, deadman, and EDS system function testing on subsea BOPs; and
- New subsea BOP system requirements.

Exhibit 5 displays estimates of costs to small entities as a percentage of revenues.⁴⁵ In 8 of the 10 years in the

analysis period, the proposed rule represents a cost of \$595,628 per entity. In the first year, costs would be higher at \$1,268,175 per entity as a result of the one-time equipment and inspection costs. In year 6, small entities would incur the costs from BOP major inspections, which would be performed every 5 years.

The costs of the rule as a proportion of small entity revenue range from 1.30 percent in most years to 2.78 percent in the first year. The BSEE considers that a rule has a “significant economic impact” when the total annual cost associated with the rule is equal to or exceeds 1 percent of annual revenue. Thus, the rule is expected to have a significant economic impact on the average participating small operators, lease holders, and pipeline right-of-way holders. Thus, BSEE concluded that this proposed rule will have a significant economic impact on a substantial number of small entities.

EXHIBIT 4—PER ENTITY COST OF THE PROPOSED RULE BY PROVISION¹

	Total 10 year cost per entity (undiscounted)	Average annual cost per entity (undiscounted)	Percent of total cost
(a) Additional information in the description of well drilling design criteria	\$2,176	\$218	0.03
(b) Additional information in the drilling prognosis	544	\$54	0.01
(c) Prohibition of a liner as conductor casing	61,154	6,115	0.90
(d) Additional capping stack testing requirements	6,154	615	0.09
(e) Additional information in the APM for installed packers	442	44	0.01
(f) Additional information in the APM for pulled and reinstalled packers	1,717	172	0.03
(g) Rig movement reporting	191	19	0.00
(h) and (i) Information on MODUs, including lift boats	6,799	680	0.10
(j) Real-time monitoring of well operations	3,115,385	311,538	45.92
(k) Additional documentation and certification requirements for BOP systems and system components	137,059	13,706	2.02
(l) Additional information in the APD, APM, or other submittal for BOP systems and system components	2,176	218	0.03
(m) Submission of a Mechanical Integrity Assessment Report by a BSEE-approved verification organization	370,319	37,032	5.46
(n) New surface BOP requirements	Data not available; requesting comments		
(o) New subsea BOP system requirements ²	384,615	38,462	5.67
(p) New surface accumulator system requirements	21,713	2,171	0.32
(q) Chart recorders	1,388	139	0.02
(r) Use water to test surface BOP system	408	41	0.01

⁴² For subsea BOP rigs, we assumed that equipment and labor cost would be \$350,000 per rig. We multiplied the total number of subsea BOP rigs (40) by the equipment and labor cost to obtain an inspection-year cost of \$14 million (\$350,000 × 40), which occurs every 5 years for subsea BOP rigs. For surface BOP rigs, we assumed that equipment and labor cost would be \$150,000 per rig. We multiplied the total number of surface BOP rigs (50) by the equipment and labor cost to obtain an inspection-year cost of \$7.5 million (\$150,000 × 50), which occurs every 5 years for surface BOP rigs. The sum of subsea and surface BOP costs are \$21.5 million during the year of inspection. We divided this total cost by the number of entities (130) to obtain an average cost of inspection per entity of \$165,385 (\$21,500,000 ÷ 130).

⁴³ We assumed that industry staff (administrative staff) would spend 0.5 hours to submit a report. We multiplied the number of industry staff hours per submission by the average hourly compensation

rate for administrative staff (\$29.82) and then multiplied this annual cost by the number of affected wells (120, based on the assumption of three wells per subsea BOP rig) to obtain an average annual labor cost to industry of \$1,789 (0.5 × \$29.82 × 120). We divided the average annual labor cost to industry by the number of entities (130) to obtain an average annual labor cost per entity of \$14 (\$1,789 ÷ 130).

⁴⁴ We assumed that industry staff (a professional engineer, supervisory) would spend two hours to review the new regulation. The average hourly wage rate for a professional engineer (supervisory) is \$76.00, based on BSEE's Supporting Statement A (BSEE Production Safety Systems). We multiplied this wage rate by the private sector loaded wage factor of 1.42 to account for employee benefits, resulting in a loaded average hourly compensation rate of \$107.92. We assumed that an industry staff would review the new regulation at each of the 130 field offices. We multiplied the number of hours per

review by the average hourly compensation rate and by the number of field offices, resulting in an estimated one-time labor cost to industry of \$28,059 (2 × \$107.92 × 130). We divided the one-time labor cost by the number of entities (130) to obtain an average one-time labor cost of \$216 (\$28,059 ÷ 130).

⁴⁵ The source for the estimated small business revenue is the RIA for the BSEE Final Rulemaking “Increased Safety Measures for Energy Development on the Outer Continental Shelf” (77 FR 50856; August 22, 2012). The data in the source document is from the Office of Natural Resources Revenue. The RIA can be viewed here: <http://www.regulations.gov/#!documentDetail;D=BSEE-2012-0002-0047>. The data source reports the total 2009 small company revenue to be \$4,113,000,000. We calculated the average revenue per small business by dividing the total small business revenue by the number of small businesses subject to the rule (\$4,113,000,000/90 operators) to obtain an average of \$45,700,000 per operator.

EXHIBIT 4—PER ENTITY COST OF THE PROPOSED RULE BY PROVISION¹—Continued

	Total 10 year cost per entity (undiscounted)	Average annual cost per entity (undiscounted)	Percent of total cost
(s) Alternating BOP control station function testing	1,923,077	192,308	28.35
(t) ROV intervention function testing	32,051	3,205	0.47
(u) Autoshear, deadman, and EDS system function testing on subsea BOPs	385,385	38,538	5.68
(v) Approval for well-control equipment not covered in Subpart G	7	1	0.00
(w) Breakdown and inspection of BOP system and components	330,769	33,077	4.88
(x) Record-keeping for real-time monitoring	138	14	0.00
(y) Industry familiarization with the new rule	216	22	0.00
Total	6,783,880	678,388	100.00

¹ Totals may not add because of rounding.

² This is a lower-bound estimate of the costs of this provision; BSEE seeks comment on costs that we were unable to estimate (see section 4 above for details).

EXHIBIT 5—ANNUAL COST AND REVENUE PER ENTITY

Year	2015	2016–2019 (each year the same)	2020	2021–2024 (each year the same)
Annual Industry Cost Stream for Proposed Rule a	\$164,728,509	\$77,297,317	\$98,797,317	\$77,297,317
Total Entities b	130	130	130	130
Average Annual Cost per Entity c = a ÷ b	1,268,175	595,628	761,012	595,628
Average Annual Revenue for Small Entities ¹ d	45,700,000	45,700,000	45,700,000	45,700,000
Cost from Proposed Rule as a Percentage of Annual Revenue e = c ÷ d	2.78%	1.30%	1.67%	1.30%

¹ The source for this estimate is the RIA for the BSEE Final Rulemaking “Increased Safety Measures for Energy Development on the Outer Continental Shelf” (77 CFR 50856; August 22, 2012). The data in the source document is from the Office of Natural Resource Revenue. The RIA can be viewed here: <http://www.regulations.gov/#!documentDetail;D=BSEE-2012-0002-0047>. The data source reports the total 2009 small company revenue to be \$4,113,000,000. We calculated the average revenue per small business by dividing the total small business revenue by the number of small businesses subject to the rule (\$4,113,000,000/90) to obtain an average of \$45,700,000 per operator.

4. Identification of All Relevant Federal Rules That May Duplicate, Overlap, or Conflict With the Proposed Rule

The proposed rule does not conflict with any relevant federal rules or duplicate or overlap with any Federal rules in any way that would unnecessarily add cumulative regulatory burdens on small entities without any gain in regulatory benefits.

However, BSEE requests comments identifying any federal rules that may duplicate, overlap, or conflict with the proposed rule.

5. Description of Significant Alternatives to the Proposed Rule

BSEE has considered three alternatives:
BSEE has considered three regulatory alternatives:

(1) Promulgate the requirements contained within the proposed rule, including increasing the BOP testing frequency for workover and decommissioning operations from current 7 day to proposed 14 day testing frequency. The following chart identifies the BOP testing changes related to Alternative 1:

BOP PRESSURE TESTING

Operation	Current testing frequency	Proposed testing frequency
Drilling/Completions	14 days	14 days
Workover/Decommissioning	7 days	14 days

(2) Promulgate the requirements contained within the proposed rule with a change to the required frequency of BOP pressure testing from the existing

regulatory requirements (e.g., 7 or 14 days depending upon the type of operation) to 21 days for all operations. The following chart identifies the BOP

testing changes related to Alternative 2; or

BOP PRESSURE TESTING

Operation	Current testing frequency	Proposed testing frequency (Alternative 1)	Alternative 2 testing frequency
Drilling/Completions	14 days	14 days	21 days
Workover/Decommissioning	7 days	14 days	21 days*

* includes change from current 7 days to proposed 14 days

(3) Take no regulatory action and continue to rely on existing BOP regulations in combination with permit conditions, Deep Water Operations Plans (DWOPs), operator prudence, and industry standards.

Alternative 2 results in a time-savings benefit to industry but no additional costs to industry, and thus the costs are the same for Alternatives 1 and 2. By taking no regulatory action in Alternative 3, BSEE would leave unaddressed most of the concerns and recommendations that were raised regarding the safety of offshore oil and gas operations and the potential for another event with consequences similar to those of the *Deepwater Horizon* incident.⁴⁶

Alternative 2 was not selected because BSEE is lacking critical data on testing frequency and equipment reliability. This issue may be considered in the final rulemaking if BSEE receives sufficient data to support Alternative 2.

The BSEE has elected to move forward with Alternative 1, the proposed rule, which would address recommendations provided by government, industry, academia, and other stakeholders as well as incorporate API Standard 53. In addition to addressing concerns and aligning with industry standards, BSEE is functioning in a prudent capacity with this proposed rule by advancing several of the more critical capabilities beyond current industry standards. The proposed rule would also improve efficiency and consistency of the regulations and allow for flexibility in future rulemakings.

The operating risk for small companies to incur safety or environmental accidents is not necessarily lower than it is for larger companies. Offshore operations are highly technical and can be hazardous. Adverse consequences in the event of incidents are similar regardless of the operator's size. The proposed rule would reduce risk for entities of all sizes. Nonetheless, BSEE is requesting comment on the time it would take to comply with the proposed rule and the costs of these proposed policies on small entities, with the goal of ensuring thorough consideration and discussion at the final rule stage. The BSEE specifically requests comments on the burden estimates discussed above as well as information on regulatory alternatives that would reduce the burden on small entities (e.g., different compliance requirements for small entities, alternative testing requirements

and periods, and exemption from regulatory requirements).

Small Business Regulatory Enforcement Fairness Act

The proposed rule is a major rule under the Small Business Regulatory Enforcement Fairness Act, 5 U.S.C. 801 *et seq.* This proposed rule:

(1) Would have an annual effect on the economy of \$100 million or more.

(2) Would cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions.

(3) Would not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises.

The requirements would apply to all entities operating on the OCS regardless of company designation as a small business. For more information on costs affecting small businesses, see the RFA discussion.

Unfunded Mandates Reform Act of 1995

This proposed rule would not impose an unfunded mandate on State, local, or tribal governments or the private sector of more than \$100 million per year. The proposed rule would not have a significant or unique effect on State, local, or tribal governments or the private sector. A statement containing the information required by the Unfunded Mandates Reform Act, 2 U.S.C. 1501 *et seq.*, is not required.

Takings Implication Assessment (E.O. 12630)

Under the criteria in E.O. 12630, this proposed rule does not have significant takings implications. The proposed rule is not a governmental action capable of interference with constitutionally protected property rights. A Takings Implication Assessment is not required.

Federalism (E.O. 13132)

Under the criteria in E.O. 13132, this proposed rule does not have federalism implications. This proposed rule would not substantially and directly affect the relationship between the Federal and State governments. To the extent that State and local governments have a role in OCS activities, this proposed rule would not affect that role. A federalism assessment is not required.

Civil Justice Reform (E.O. 12988)

This rule complies with the requirements of E.O. 12988. Specifically, this rule:

(1) Meets the criteria of section 3(a) requiring that all regulations be

reviewed to eliminate errors and ambiguity and be written to minimize litigation; and

(2) Meets the criteria of section 3(b)(2) requiring that all regulations be written in clear language and contain clear legal standards.

Consultation With Indian Tribes (E.O. 13175)

Under the criteria in E.O. 13175, we have evaluated this proposed rule and determined that it has no substantial direct effects on federally recognized Indian tribes. The BSEE is committed to regular and meaningful consultation and collaboration with tribes on policy decisions that have tribal implications. The BSEE will consult with any tribe that requests consultation about this proposed rule.

Paperwork Reduction Act (PRA) of 1995

This proposed rule contains collections of information that will be submitted to OMB for review and approval under the PRA, 44 U.S.C. 3501 *et seq.* As part of its continuing effort to reduce paperwork and burdens on respondents, BSEE invites the public and other Federal agencies to comment on any aspect of the reporting and recordkeeping burden. If you wish to comment on the information collection (IC) aspects of this proposed rule, you may send your comments directly to OMB and send a copy of your comments to the Regulations and Standards Branch (see the **ADDRESSES** section of this proposed rule). Please reference 30 CFR part 250, subpart G, Blowout Preventer Systems and Well Control, 1014-NEW, in your comments. To see a copy of the information collection request submitted to OMB, go to <http://www.reginfo.gov> (select Information Collection Review, Currently Under Review); or you may obtain a copy of the supporting statement for the new collection of information by contacting the Bureau's Information Collection Clearance Officer at (703) 787-1607.

The PRA provides that an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB is required to make a decision concerning the collection of information contained in these proposed regulations 30-60 days after publication of this document in the **Federal Register**. Therefore, a comment to OMB is best assured of being fully considered if OMB receives it by May 18, 2015. This does not affect the deadline for the public to comment to BSEE on the proposed regulations.

⁴⁶ See sources listed in n. 6.

The title of the collection of information for this rule is 30 CFR 250, Subpart G, Blowout Preventer Systems and Well Control (Proposed Rulemaking). The proposed regulations concern BOP system requirements, maintaining well control among others, and the information is used in BSEE's efforts to regulate oil and gas operations on the OCS to protect life and the environment, conserve natural resources, and prevent waste.

Potential respondents comprise Federal OCS oil, gas, and sulphur operators and lessees. Responses to this collection of information are mandatory, or are required to obtain or retain a benefit; they are also submitted on occasion, daily and weekly (during drilling operations), monthly, quarterly, biennially, and as a result of situations encountered depending upon the requirement. The IC does not include questions of a sensitive nature. The BSEE will protect proprietary information according to the Freedom of Information Act (5 U.S.C. 552) and DOI implementing regulations (43 CFR 2), 30 CFR part 252, *OCS Oil and Gas Information Program*, and 30 CFR 250.197, *Data and information to be made available to the public or for limited inspection*.

This proposed rule affects Subpart A (1014-0022, expiration 8/31/2017); Subpart B (1014-0024, expiration 12/31/2015); Applications for Permits to Drill (1014-0025, expiration 4/30/17); Applications for Permits to Modify (1014-0026, expiration 5/31/17); Subpart D (1014-0018, expiration 10/31/17); Subpart E, (1014-0004, expiration 12/31/16); Subpart F, (1014-0001, expiration 12/31/16); Subpart P, (1014-0006, expiration 12/31/16); and Subpart Q, (1014-0010, expiration 10/31/16).

This rule would also codify NTL 2013-G01, Global Positioning Systems (GPS) for Mobile Offshore Drilling Units (MODUs) (1014-0013, expiration 1/31/2016).

This rule proposes to create new 30 CFR part 250, subpart G, Well Operations and Equipment, which will combine common requirements from the various other subparts mentioned, as well as add new requirements. The following explanations apply to this section: in the burden table, the OMB currently approved hour and/non-hour cost burdens for requirements will be identified with an asterisk (*); *italics* show *revision(s)* of existing requirements; and brackets indicate new requirements.

A vast majority of this proposed rule contains IC burdens OMB has already approved (174,686 burden hours* and \$102,500 non-hour cost burdens*). We are revising some existing requirements (+ 5,052 burden hours); and adding [new] regulatory requirements (+ [11,701 burden hours]) for a total of 191,439 burden hours.

The following is a brief explanation of how the proposed regulatory changes affect the various subpart and form burdens:

- Subpart A—transferred the currently approved burden hours from Subpart D for BOPs pertaining to alternative procedures and departures (12,300 hours*).
- Subpart B—revised the requirement by adding information to be submitted with DWOPs pertaining to free standing hybrid risers (FSHR) (9,000 hours* + 48 hours).
- APD—added NEW burden hours pertaining to requirements including, but not limited to, ECD information, current monitoring, changes to casing, etc. (47,800 hours* + [1,122 hours]). Because the responses remained unchanged, we did not list the non-hour costs burdens associated with APDs since the dollar amount will not change.
- APM—added NEW burden hours pertaining to requirements including, but not limited to, descriptions/calculations of production packer setting depth, annulus monitoring plan information, etc. (11,321 hours* + [1,929 hours]). Because the responses remained unchanged, we did not list the

non-hour costs burdens associated with APMs since the dollar amount will not change.

- Subpart D—
 - (1) relocated common well operation and equipment requirements (10,811 hours*).
 - (2) revised requirements for additional information relating to safe drilling margins, well head descriptions, casing or line centralization during cementing, submitting any changes to approved plans, permits, or submittal (+ 4,859 hours).
 - (3) added NEW burden hours pertaining to requirements relating to, but not limited to, cementing, source control and containment capabilities, etc., (+ [1,923 hours]).
 - Subpart G—
 - (1) relocated burden hours from OMB currently approved requirements in D, E, F, P, and Q, that pertain to rig requirements, well operations, BOP system requirements, etc., as well as the hour and non-hour cost burden from GPS for MODUs (NTL 2013-G01) (83,454 hours* and \$102,500 non-hour cost burden*).
 - (2) revised requirements that were relocated from other subparts in 30 CFR 250 for additional information that may be needed for properly functioning acoustic systems, EDS, rating pressure, etc., and requirements needing approval by the District Manager (+ [145 hours]).
 - (3) added NEW requirements pertaining to, but not limited to, warm or cold stacking for MODUs, dropped objects plan, real-time monitoring, pressure tests, etc., (+ [6,727 hours]).
 - Subparts P and Q have only cross references to new Subpart G or current Subpart D and have no new associated burdens.
- Once this rule becomes effective, BSEE will use the approved OMB control number for the Subpart G information collection. The affected remaining subparts discussed in this rule will have their information collection burdens adjusted accordingly through the renewal process.

BURDEN TABLE

[Current regulations are regular font with an asterisk (*); *Italic* font show *revision(s)* of existing requirements; and bracketed text indicates new requirements]

30 CFR 250 Current Revision NEW	Reporting and recordkeeping requirement+ (BSEE-Approved Verification Organization = BAVO)	Hour burden	Average number of annual responses	Annual burden hours (rounded)
Subpart A				
[107]	NEW: Produce and submit documents ordered by BSEE to ensure compliance with this part.	Burden covered under various 30 CFR 250 regulations (depending on the operational requirement(s)).		0

BURDEN TABLE—Continued

[Current regulations are regular font with an asterisk (*); *Italic* font show *revision(s)* of existing requirements; and bracketed text indicates new requirements]

30 CFR 250 Current Revision NEW	Reporting and recordkeeping requirement+ (BSEE-Approved Verification Organization = BAVO)	Hour burden	Average number of annual responses	Annual burden hours (rounded)
141; 198; [701; 720(a)(2); 730(d)(1)]; 1612.	Request approval to use new or alternative procedures, along with supporting documentation if applicable, including BAST not specifically covered elsewhere in regulatory requirements.	20	496 requests	9,920*
142; 198; 702	Request approval of departure from operating requirements not specifically covered elsewhere in regulatory requirements, along with supporting documentation if applicable.	2.5	952 requests	2,380*
Subtotal (A) .....	.....	.....	1,448 responses	12,300 hours*

Subpart B

287; 291; 292(p)	Submit DWOP and accompanying/supporting information. <i>[Provide detailed information/descriptions pertaining to pipeline free standing hybrid riser (FSHR)].</i> Submit documentation for pipeline FSHR certification and have verified by CVA.	750	12 plans	9,000* 48
Subtotal (B) .....	.....	.....	12 responses	9,000 hours* 48 hours 9,048 hours

Applications for Permit to Drill (APD)

410–418; [420(a)(7); 423(c)(1); 428(b), (k)]; plus various references in Sub- parts A, D, E, F, [G (701; 702; 713(a), (b), (e), (g); 720(b); 721(g)(4); 724(b); 731; 733(b); 734(b), (c); 737(a)(3), (b)(2), (b)(3), (d)(2), (d)(3), (d)(4), (d)(12), (d)(13); 738(m), (n)]; H; and P.	Apply for permit to drill APD (Form BSEE–0123) that includes any/all supporting documentation/evidence (including, but not limited to, test results, calculations, pressure integrity, kill weight fluids, verifications, certifications, procedures, criteria, qualifications, diverter descriptions; [ECD information]; rig anchor pattern plats; contingency plan (move off info/[current monitoring]); description of your BOP and its components and schematic drawings; [descriptive schematic (pressure ratings, dimensions, valves, load shoulders, height above water line etc.); location of ruptured disks; description of mudline level to displace cement; how the operator will visually monitor returns; PE certification showing approval of changes to casing setting depths; description of source control and containment capabilities; EDS; annulus monitoring plan information; any additional information required by District Manager]; etc.) and requests for various approvals required in Subpart D (including §§ 250.418(g); 427, 428, 432, 460, 490(c)) and submitted via the form; upon request, make available to BSEE.	114.98	408 applications	46,912* 1,122
[420(b)(4)]; 428; 465(a)(1); [721(g)(4); 731; 733(f); 734(b), (c)].	Obtain approval to revise your drilling plan [changes to the casing], or change major drilling equipment by submitting a revised Form BSEE–0123, Application for Permit to Drill; [include BAVO certification; any other information required by the District Manager (on a case-by-case basis)].	1.34	662 submittals	888*

BURDEN TABLE—Continued

[Current regulations are regular font with an asterisk (*); *Italic* font show *revision(s)* of existing requirements; and bracketed text indicates new requirements]

30 CFR 250 Current Revision NEW	Reporting and recordkeeping requirement+ (BSEE-Approved Verification Organization = BAVO)	Hour burden	Average number of annual responses	Annual burden hours (rounded)
Subtotal (APD)	1,070 responses	47,800 hours* [1,122 hours] 48,922 hours

Application for Permit to Modify (APM)

460; 465; plus various ref in A, D, E 518(f); F, 619(f); [G, 701; 702; 713(a), (b), (e), (g); 720(b); 721(g)(4); 724(b); 731; 733(b), (f), 734(b)(1); 737(d)(2), (d)(3), (d)(4), (d)(12), (d)(13); 738(m), (n)].; H; P; and Q 1704(g).	Provide revised plans and the additional supporting information required by the cited regulations [test results; calculations; verifications; certifications, procedures; [descriptions/calculations of production packer setting depth]; rig anchor pattern plats; contingency plan (move off info/[current monitoring]); description of your BOP, its components and schematic drawings; [annulus monitoring plan information]; criteria; qualifications; etc.] when you submit an Application for Permit to Modify (APM) (Form BSEE-0124) to BSEE for approval.	3.377 [40 min]	2,893 applications	9,770 * [1,929]
Subparts D, E, F, H, P, Q.	Submit Revised APM plans (BSEE-0124). (This burden represents only the filling out of the form).	1	1,551 applications	1,551*
Subtotal (APM) ...	.....	.....	4,444 responses	11,321 hours* [1,929 hours] 13,250 hours

Subpart D

420(b)(3); 465(a) (b)(3); plus various ref in A, D, E, F, [G, 721(g)(8); 744]; P; Q (1704(h))];..	Submit form BSEE-0125 (End-of-Operations Report (EOR)) and all additional supporting information as required by the cited regulations; <i>and any additional information required by the District Manager.</i>	2 1	239 submittals	478 * 239
421(b)	Alaska only: Discuss the cement fill level with the District Manager.	1	1 discussion	1 *
423(c)(2)	Document all your test results and make them available to BSEE upon request.	0.5	300 results	150 *
428(c)(3); [428(k); 743(a), (c); 746(e)]; plus various references in Subparts A, D, [G].	In the GOM OCS Region, submit drilling activity reports weekly (District Manager may require more frequent submittals on a case-by-case basis) on Forms BSEE-0133 (Well Activity Report (WAR)) and BSEE-0133S (Bore Hole Data) with supporting documentation.	1	4,160 submittals	4,160*
428(c)(3); [428(k); 743(b), (c)] plus various references in Subparts A, D, [G].	In the Pacific and Alaska Regions during drilling operations, submit daily drilling reports on Forms BSEE-0133 (Well Activity Report (WAR)) and BSEE-0133S (Bore Hole Data) with supporting documentation.	1	14 wells × 365 days × 20% year = 1,022.	1,022 *
428(d)	Submit all remedial actions for review and approval by District Manager (before taking action); and any other requirements of the District Manager.	5	1,000 submittals	5,000 *
428(d)	<i>Submit descriptions of completed immediate actions to District Manager (if taken to ensure safety of crew/prevent well-control event); and any other requirements of the District Manager.</i>	5	564 submittals	2,820
428(d)	<i>Submit PE certification of any proposed changes to your well program; and any other requirements of the District Manager.</i>	4	450 submittals	1,800
[428(k)]	NEW: Maintain daily drilling report (cementing requirements).	[0.5]	[75 reports]	[38]

BURDEN TABLE—Continued

[Current regulations are regular font with an asterisk (*); *Italic* font show *revision(s)* of existing requirements; and bracketed text indicates new requirements]

30 CFR 250 Current Revision NEW	Reporting and recordkeeping requirement+ (BSEE-Approved Verification Organization = BAVO)	Hour burden	Average number of annual responses	Annual burden hours (rounded)
[428(k)]	NEW: If cement returns are not observed, contact the District Manager to obtain approval before continuing with operations.	[1]	[10 requests]	[10]
[462(c)]	NEW: Submit a description of source control and containment capabilities to the Regional Supervisor for approval.	[8]	[150 submittals]	[1,200]
[462(d)]	NEW: Request re-evaluation of your source containment capabilities from the District Manager and Regional Supervisor..	[1]	[600 requests]	[600]
[462(e)(1)]	NEW: Notify BSEE at least 21 days prior to pressure testing; needs to be witnessed by BSEE and a BAVO.	[0.5]	[150 notifications]	[75]
Subtotal (D) .....	.....	.....	6,722 responses 1,014 responses [985 responses] 8,721 responses	10,811 hours*. 4,859 hours [1,923 hours] 17,593 hours

Subpart E

518(f)	Include in your APM descriptions and calculations of production packer setting depth(s).	Burden covered under 1014-0026	0
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Subpart F

619(f)	Include in your APM descriptions and calculations of production packer setting depth(s).	Burden covered under 1014-0026	0
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Subpart G

General Requirements

[701; 720(a); 730(d)(1)] [(250.141)].	Request alternative procedures or equipment from District Manager; along with any supporting documentation/information required.	Burden cover under 1014-0022	0
[702] [(250.142)]	Request departures from District Manager; include justification; and submit supporting documentation if applicable.	Burden cover under 1014-0022	0

Rig Requirements

[710(a)]	Instruct crew members in safety requirements of operations—record dates and times of meetings, <i>include potential hazards; make available to BSEE.</i>	0.75	7,512 meetings	5,634*
[710(b); 738(p)]	Prepare a well-control drill plan for each well, including but not limited to procedures, [EDS], crew assignments, established times to complete assignments, etc. Keep/post a copy of the plan on the rig at all times; post on rig floor/bulletin board.	0.5	308 plans	154*
[711(b), (c)]	Record in the daily report: time, date, and type of drill conducted; time to close diverter or BOP; total time for entire drill. The BSEE may require you to conduct a well-control drill during an inspection.	1	8,320 drills	8,320*
[712(a), (b), (f)]	Notify BSEE of all rig movements on or off locations.	0.1	20 notices	2*
	Rig movements reported on Rig Movement Notification Report (Form BSEE-0144). <i>Including MODUs, platform rigs; snubbing units, lift boats, wire-line units, and coiled tubing units 72 hours prior to movement; if the initial date changes by more than 24 hours, submit updated BSEE-0144.</i>	0.2	151 submittals	30*

BURDEN TABLE—Continued

[Current regulations are regular font with an asterisk (*); *Italic* font show *revision(s)* of existing requirements; and bracketed text indicates new requirements]

30 CFR 250 Current Revision NEW	Reporting and recordkeeping requirement+ (BSEE-Approved Verification Organization = BAVO)	Hour burden	Average number of annual responses	Annual burden hours (rounded)
[712(c), (e)]	NEW: Notify District Manager if MODU or platform rig is to be warm or cold stacked on Form BSEE-0144; notify District Manager where the rig is coming from when entering OCS waters.	[0.5]	[25 notifications]	[13]
[712(d)]	NEW: Prior to resuming operations, report to District Manager any construction repairs or modifications that were made to the MODU or rig.	[2]	[10 responses]	[20]
[713]	Submit MODU or lift boat information if being used for well operations with your APD/ APM.	Burden covered under 1014-0025 for APD; and 1014-0026 for APM		0
[713(a), (b)]	Collect and report additional information on a case-by-case basis if sufficient information is not available.	5	30 reports	150*
[713(b)]	Reference to Exploration Plan, Development and Production Plan, and Development Operations Coordination Document (30 CFR 550, Subpart B).	Burden covered under 1010-0151		0
[713(c)(1)]	Submit 3rd party review of drilling unit according to 30 CFR 250, Subpart I.	Burden covered under 1014-0011		0
[713(c)(2); (417(c)(2))]	Have a Contingency Plan that addresses design and operating limitations of MODU or lift boat.	Burden covered under 1014-0025		0
[713(d) (417(d))]	Submit current certificate of inspection/compliance from USCG and classification; submit documentation of operational limitations by a classification societ.	Burden covered under 1014-0025		0
[714]	NEW: Develop and implement dropped objects plan with supporting documentation/information; any additional information required by the District Manager; make available to BSEE upon request.	[40]	[40 plans]	[1,600]
[715] NTL	GPS for MODUs	0.25	1 rig.	
	1—Notify BSEE with tracking/locator data access and supporting information; notify BSEE Hurricane Response Team as soon as operator is aware a rig has moved off location.		1 notification	1*
	2—Install and protect tracking/locator devices—(these are replacement GPS devices or new rigs).	20 devices per year for replacement and/or new × \$325.00 = \$6,500*		
	3—Pay monthly tracking fee for GPS devices already placed on MODUs/rig..	40 rigs × \$50/month = (\$600/year per 1 rig) = \$24,000*		
	4—Rent GPS devices and pay monthly tracking fee per rig.	40 rigs @\$1,800 per year = \$72,000*		
			16,313 responses [105 responses] 16,418 responses	14,141 hours* [1,783 hours] 15,924 hours
Subtotal (G—Rig Req.).			\$102,500 Non-hour cost burdens*	

BURDEN TABLE—Continued

[Current regulations are regular font with an asterisk (*); *Italic* font show *revision(s)* of existing requirements; and bracketed text indicates new requirements]

30 CFR 250 Current Revision NEW	Reporting and recordkeeping requirement+ (BSEE-Approved Verification Organization = BAVO)	Hour burden	Average number of annual responses	Annual burden hours (rounded)
Well Operations				
[720(a)]	NEW: Notify and obtain approval from the District Manager when interrupting operations before getting off the well.	[5]	[150 notifications]	[750]
[720(a)(2)]	Request approval to use alternate procedures/barriers.	Burden covered under 1014–0022		0
[720(b)]	Submit with your APD or APM reasons for displacing kill-weight fluid with detailed step-by-step written procedures how to displace the fluids, shear pipe procedures, etc.	Burden covered under 1014–0025 for APD; and 1014–0026 for APM		0
[721(d), (f), (g)]	Submit to the District Manager for approval plans to re-cement, repair, or run additional casing/liner for proper seal, along with PE certification of proposed plans. The District Manager may require you to perform additional pressure tests.	0.5	88 requests	44 *
[721(g)(4)]	Submit test procedures and criteria for a successful test with APD/APM; if changes made to procedures, submit changes with revised APD or APM.	Burden covered under 1014–0025 for APD; and 1014–0026 for APM.		0
[721(g)(5)]	Document all your test results and make them available to BSEE upon request.	0.75	1,340 results	1,005 *
[721(g)(6)]	Contact the appropriate BSEE District Manager immediately if you have any indication of a failed negative pressure test; submit a description of the corrective action taken; and receive approval from the appropriate BSEE District Manager for the retest.	1	14 notifications	14 *
[721(g)(8); 744(a)]	Submit Form BSEE–0125, EOR	Burden covered under 1014–0018		0
[722]	Caliper, pressure test, or evaluate casing; submit evaluation results report <i>including calculations</i> ; obtain approval before <i>repairing or installing additional casing</i> [(including PE Certification.); or resuming operations (every 30 days during prolonged drilling).	3	247 reports	741 *
[722(b)(3)]	[Perform a pressure test after repairs made/casing installed and report results.	[1]	[300 results]	[300]
[723(d)]	Request exceptions prior to moving rig(s) or related equipment.	1.5	845 requests	1,268 *
[724]	NEW: Immediately transmit real-time monitoring data onshore during operations or in HPHT reservoirs; store and monitor by qualified personnel.	[12]	[50 submittals]	[600]
[724(b)]	NEW: List designated location where real-time data will be stored and monitored in your APD or APM; make location and data accessible to BSEE upon request.	Burden covered under 1014–0025 for APD; and 1014–0026 for APM		0
Subtotal (G—Well Op.).			2,534 responses [500 responses] 3,034 responses	3,072 hours * [1,650 hours] 4,722 hours

BURDEN TABLE—Continued

[Current regulations are regular font with an asterisk (*); *Italic* font show *revision(s)* of existing requirements; and bracketed text indicates new requirements]

30 CFR 250 Current <i>Revision</i> NEW	Reporting and recordkeeping requirement+ (BSEE-Approved Verification Organization = BAVO)	Hour burden	Average number of annual responses	Annual burden hours (rounded)
BOP System Requirements				
[730; 731; 732]	Submit BOP descriptions with your applicable APD or APM; third-party verification and supporting information/documentation.	Burden covered under 1014–0025 for APD; and 1014–0026 for APM		0
[730(a)(4)]	NEW: Maintain current set of approved schematic drawings on the rig and an onshore location; obtain District Manager approval to resume operations if any modifications or changes are made.	[24]	[10 requests]	[240]
[730(c)(1)]	NEW: Provide written report to manufacturer within 30 days of identifying equipment failure.	[2]	[30 reports]	[60]
[730(c)(2)]	NEW: Initiate investigation and analysis within 60 days to determine cause of equipment failure; provide the manufacturer a copy of analysis report.	[5]	[30 reports]	[150]
[730(c)(3)]	NEW: Report the design change/modified procedures in writing to BSEE, OORP; within 30 days of manufacturer’s notification.	[5]	[2 reports]	[10]
[730(d)(2)]	NEW: Request for alternate to API Spec. Q1 to BSEE, OORP.	[5]	[1 response]	[5]
[731]	Resubmit BOP system component documentation in your APD or APM when information changes or moved off location from well.	Burden covered under 1014–0025 for APD; and 1014–0026 for APM.		0
[732(a)]	NEW: Submit all relevant information to nominate a verification organization for BSEE approval.	[5]	[5 submittals]	[25]
[732(b)]	NEW: Submit BAVO verification and all supporting documentation related to this section (such as, but not limited to sharing testing, pressure integrity testing, calculations, etc.).	[10]	[150 Verifications]	[1,500]
[732(c)]	NEW: Submit verifications showing the BAVO conducted a comprehensive review of the BOP and related equipment for HPHT wells as listed in this section; submit verifications to the District Manager and Regional Supervisor before beginning operations in an HPHT environment.	[10]	[10 wells]	[100]
[732(d), (e)]	NEW: Submit Mechanical Integrity Assessment Report (completed by a BAVO) to BSEE, OORP; report must include all requirements listed in this section; make all documentation available to BSEE upon request.	[10]	[90 reports]	[900]
[733(b)(2)]	NEW: Describe in your APD or APM your annulus monitoring plan.	Burden covered under 1014–0025 for APD; and 1014–0026 for APM		0
[734(a)(7)]	Demonstrate that any acoustic control system will function properly in proposed environment and conditions; <i>submit any additional information requested.</i>	5	1 validation	5*
		1	10 submittals	10
[734(a)(9); 738(n)]	Label all functions on all panels	1.5	33 panels	50*
[734(a)(10)]	Develop written procedures for operating the BOP stack and LMRP and minimum knowledge requirements for personnel authorized to operate and maintain BOP components.	Burden covered under 1014–0018		0

BURDEN TABLE—Continued

[Current regulations are regular font with an asterisk (*); *Italic* font show *revision(s)* of existing requirements; and bracketed text indicates new requirements]

30 CFR 250 Current <i>Revision</i> NEW	Reporting and recordkeeping requirement+ (BSEE-Approved Verification Organization = BAVO)	Hour burden	Average number of annual responses	Annual burden hours (rounded)
[734(b), (c)]	Submit a revised APD/APM with BAVO [documenting repairs; before drilling out surface casing]; perform a new BOP test upon relatch, etc.; receive approval from the District Manager.	Burden covered under 1014–0025 for APD; and 1014–0026 for APM		0
[737(a)(3), (a)(4); (b)(2), (b)(3); (d)(2)- (4), (d)(12), (d)(13)].	In your APD: submit stump, initial, or pressure tests; and subsea BOP procedures and supporting relevant data/information; indicate which casing string and liner met the criteria of this section; quick disconnect procedures with your deadman test procedures, etc. Obtain District Manager approval of appropriate test pressures; may require more frequent testing on your BOP; or if you test annular BOP less than 70 percent.	Burden covered under 1014–0025		0
[737(c); 746(a), (b), (c), (d)].	Record the time, date, and results of all pressure tests, actuations, and inspections of the BOP system, system components, and marine riser in the daily report; onsite representative certify and sign/date reports, etc.; document sequential order of BOP, closing times, auxiliary testing, pressure, and duration of each test.	7.75	4,457 results	34,542*
[737(d)(2), (d)(3), (d)(4) (d)(12);].	Notify District Manager at least 72 hours prior to pressure stump/initial tests on seafloor; if BSEE rep unable to witness test, provide results to BSEE within 72 hours after completion; document all ROV intervention function test results; make available to BSEE upon request.	0.25 5.5	186 notifications 1,239 results	47* 6,815*
[737(d)(13)]	Document all autoshear, <i>EDS</i> , and deadman on your subsea BOP systems function test results; make available to BSEE upon request.	0.5 1	2,520 submittals 120 responses	1,260* 120
[737(e)]	Provide 72 hour advance notice of location of shearing ram tests or inspections; allow BSEE access to witness testing, inspections, and information verification.	0.25	136 notices	34*
[738; 746(e)]	NEW/ <i>Revised</i> : Requires District Manager Approval: (a), (d); 746(e) Report problems, issues, leaks; (b) Put well in a safe condition; (b) Prior to resuming operations for new/rep- aired/reconfigured BOP. (g) <i>Your well control places demands above its rating pressure;</i> (j) Two barriers in place prior to BOP re- moval.	[0.5] [1] [1] 0.25 1 [1]	[25 requests] [25 requests] [25 requests] 200 requests 15 requests [1 request]	[13] [25] [25] 50* 15 [1]
[738(b), (i)]	NEW: Submit a report/verification from BAVO that BOP is fit for service if have to repair, replace, or reconfigure a BOP.	[0.5]	[50 submittals]	[25]
[738(f)]	NEW: Notify the District Manager of BOP configuration changes.	[0.5]	[15 submittals]	[8]
[738(g)]	NEW: Demonstrate your well-control procedures will not place demands above its rated working pressure.	[1]	[15 submittals]	[15]
[738(k)]	NEW: Contact District Manager for approval prior to latching up the BOP stack or re-establishing power.	[1]	[2 requests]	[2]

BURDEN TABLE—Continued

[Current regulations are regular font with an asterisk (*); *Italic* font show *revision(s)* of existing requirements; and bracketed text indicates new requirements]

30 CFR 250 Current Revision NEW	Reporting and recordkeeping requirement+ (BSEE-Approved Verification Organization = BAVO)	Hour burden	Average number of annual responses	Annual burden hours (rounded)
[738(m)]	NEW: Request approval in your APD or APM to utilize any other well-control equipment.	Burden covered under 1014–0025 for APD; and 1014–0026 for APM		0
[738(m)]	NEW: Request approval from District Manager to utilize any other well-control equipment; include report from BAVO on the equipment design and suitability; any other documentation/information required by District Manager.	[2]	[10 requests]	[20]
[738(n)]	NEW: Include in your APD or APM which pipe/variable bore rams meet the criteria.	Burden covered under 1014–0025 for APD; and 1014–0026 for APM		0
[738(o)]	NEW: Submit report to the District Manager prepared by BAVO describing failure of redundant control and confirming no impact to the BOP that makes it unfit for well control purposes; receive approval to continue operations; submit any additional information requested by the District Manager.	[1]	[15 submittals]	[15]
[739]	Document BOP maintenance and inspection procedures used; record results of BOP inspections and maintenance actions; maintain BOP records for 2 years or longer if directed on the rig; maintain design, maintenance, inspection, and repair records for the life of the equipment; make available to BSEE upon request.	9.75	350 records	3,413*
[739(b)]	NEW: Assemble a detailed report compiled by a BAVO documenting the once every 5-year inspection, including any problems and corrections; make available to BSEE upon request.	[5]	[21 reports]	[105]
Subtotal (G—BOP SR).	.....	.....	9,122 responses 145 responses [532 responses] 9,799 responses	46,216 hours* 145 hours [3,244 hours] 49,605 hours

Records and Reporting Requirement

[740; 711(b); 738(c); 745; 746].	Maintain a daily report and accurate records for each well onsite during operation [such items in the daily report include, but are not limited to, [date, time, type of drill], test results, actuations, inspection of the BOP system, system component, signoff approvals, etc.]; and any information required by the District Manager.	25 min [1]	312 reports [25 responses]	130* [25]
[740; 741]	Retain drilling records for 90 days after drilling is complete; retain casing/liner pressure, diverter, BOP tests [and real-time data monitoring] for 2 years; retain well completion/well workover until well is permanently plugged/abandoned or lease is assigned; the records must contain appropriate information and any other information required by the District Manager.	2.15 [1]	3,460 records [25 responses]	7,439* [25]
[742] NTL	Record and submit well logs and surveys run in the wellbore and/or charts of well logging operations.	3	281 logs/surveys	843*

BURDEN TABLE—Continued

[Current regulations are regular font with an asterisk (*); *Italic* font show *revision(s)* of existing requirements; and bracketed text indicates new requirements]

30 CFR 250 Current Revision NEW	Reporting and recordkeeping requirement+ (BSEE-Approved Verification Organization = BAVO)	Hour burden	Average number of annual responses	Annual burden hours (rounded)
	Record and submit directional and vertical-well surveys..	1	281 reports	281 *
	Record and submit velocity profiles and surveys..	1	55 reports	55 *
	Record and submit core analyses.	1	150 analyses	150 *
[743(a), (c)]	In the GOM OCS Region, submit Well Activity Reports (WARs) weekly (District Manager may require more frequent submittals on case-by-case basis) on BSEE-0133 and BSEE-0133S (Open Hole Data Report) with supporting information described in this section; <i>any additional information required by the District Manager.</i>	Burden covered under 1014-0018		0
[743(b), (c)]	In the Pacific and Alaska OCS Regions during operations, submit WARs daily (BSEE-0133 and BSEE-0133S); with supporting information described in this section; <i>any additional information required by the District Manager.</i>	Burden covered under 1014-0018		0
[744]	Submit form BSEE-0125, EOR	Burden covered under 1014-0018		0
[745]; NTL	Submit copies of well records; paleontological interpretations; service company reports; and other reports or records of operations to BSEE as requested.	1.5	308 submissions	462 *
[746]	Record the time, date, and results of all casing and liner presser tests.	2	4,160 results	8,320 *
[746(f)]	Retain all records pertaining to tests, actuations, and inspections at the facility; retain all the records listed in this section for a period of 2 years at the facility, at the lessee's field office nearest the OCS facility, or at another location conveniently available to BSEE; make all the records available to BSEE upon request.	1.5	1,563 records	2,345 *
Subtotal (G—Rec. & Rpt. Req.).	.....	.....	10,570 responses [50 responses] 10,620 responses	20,025 hours * [50 hours] 20,075 hours.
Subpart P				
1612	Request exception from 30 CFR 250.711 requirements.	Burden covered under 1014-0006		0
Subpart Q				
1704(g), [(h)]	Submit Forms BSEE-0124 and BSEE-0125; include all supporting documentation/information.	Burden covered under 1014-0018 for BSEE-0125; and 1014-0026 for BSEE-0124		0
Current burden ...	.....	.....	52,235 responses	174,686 hours *
Revised burden ..	.....	.....	1,159 responses	5,052 hours
[NEW burden] .....	.....	.....	[2,172 responses]	[11,701 hours]
Grand Total	.....	.....	55,566 Responses	191,439 Hours

BURDEN TABLE—Continued

[Current regulations are regular font with an asterisk (*); *Italic* font show *revision(s)* of existing requirements; and bracketed text indicates new requirements]

30 CFR 250 Current <i>Revision</i> NEW	Reporting and recordkeeping requirement+ (BSEE-Approved Verification Organization = BAVO)	Hour burden	Average number of annual responses	Annual burden hours (rounded)
\$102,500 Non-Hour Cost Burden				

* Indicates burdens are covered under one of the following OMB approved control numbers: 1014-0022, Subpart A; 1014-0024, Subpart B; 1014-0018, Subpart D; 1014-0004, Subpart E; 1014-0001, Subpart F; 1014-0006, Subpart P; 1014-0010, Subpart Q; 1014-0013, GPS for MODUs; 1014-0025, APDs; or 1014-0026, APMs.

+ In the future BSEE will be allowing the option of electronic reporting for certain requirements.

The BSEE specifically solicits comments on the following:

- (1) Is the IC necessary or useful for us to perform properly;
- (2) Is the proposed burden accurate;
- (3) Do you have any suggestions that will enhance the quality, usefulness, and clarity of the information to be collected; and
- (4) Can we minimize the burden on the respondents.

In addition, the PRA requires agencies to also estimate the non-hour cost burden to respondents or recordkeepers resulting from the collection of information. Therefore, if you have other than hour burden costs to generate, maintain, and disclose this information, you should comment and provide your total capital and startup cost components or annual operation, maintenance, and purchase of service components. Generally, your estimate should not include costs incurred for reasons other than to provide information or keep records for the government; or as part of customary and usual business or private practices. For further information on this burden, refer to 5 CFR 1320.3(b)(1) and (2), or contact the BSEE Bureau Information Collection Clearance Officer.

National Environmental Policy Act of 1969 (NEPA)

We prepared a draft environmental assessment that concludes that this proposed rule would not have a significant impact on the quality of the environment under NEPA. A copy of the draft Environmental Assessment can be viewed at www.regulations.gov (use the keyword/ID BSEE-2015-0002). We will consider any new information we receive during the public comment period for the proposed rule that may inform our analysis of the potential environmental impacts of the rule.

Data Quality Act

In developing this rule, we did not conduct or use a study, experiment, or survey requiring peer review under the Data Quality Act (Pub. L. 106-554, app. C § 515, 114 Stat. 2763, 2763A-153-154).

Effects on the Nation's Energy Supply (E.O. 13211)

This rule is not a significant energy action under the definition in E.O. 13211. Although the proposed rule is a significant regulatory action under E.O. 12866, it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. A Statement of Energy Effects is not required.

Clarity of This Regulation

We are required by E.O. 12866, E.O. 12988, and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;
- (3) Use clear language rather than jargon;
- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in the **ADDRESSES** section. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that you find unclear, which sections or sentences are too long, the sections where you feel lists or tables would be useful, *etc.*

Public Availability of Comments

Before including your address, phone number, email address, or other

personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

List of Subjects in 30 CFR Part 250

Administrative practice and procedure, Continental shelf, Environmental impact statements, Environmental protection, Incorporation by reference, Oil and gas exploration, Penalties, Public lands—mineral resources, Public lands—rights-of-way, Reporting and recordkeeping requirements, Sulphur.

Dated: April 9, 2015.

Janice M. Schneider,
Assistant Secretary—Land and Minerals Management.

For the reasons stated in the preamble, the Bureau of Safety and Environmental Enforcement (BSEE) is proposing to amend 30 CFR part 250 as follows:

PART 250—OIL AND GAS AND SULPHUR OPERATIONS IN THE OUTER CONTINENTAL SHELF

- 1. The authority citation for part 250 continues to read as follows:

Authority: 30 U.S.C. 1751, 31 U.S.C. 9701, 43 U.S.C. 1334.

- 2. In § 250.102, revise paragraphs (b)(1) and (b)(11) through (13) and add paragraph (b)(19) to read as follows:

§ 250.102 What does this part do?

* * * * *

(b) * * *

TABLE—WHERE TO FIND INFORMATION FOR CONDUCTING OPERATIONS

For information about . . .	Refer to . . .
(1) Applications for permit to drill (APD)	30 CFR 250, subparts D and G.
* * * * *	* * * * *
(11) Oil and gas well-completion operations	30 CFR 250, subparts E and G.
(12) Oil and gas well-workover operations	30 CFR 250, subparts F and G.
(13) Decommissioning activities	30 CFR 250, subparts G and Q.
* * * * *	* * * * *
(19) Well operations and equipment	30 CFR 250, subpart G.

■ 3. Amend § 250.107 by:

■ a. Removing the word “and” from the end of paragraph (a)(1);

■ b. Removing the period from the end of paragraph (a)(2) and adding in its place a semicolon; and

■ c. Adding paragraphs (a)(3) and (4) and (e).

The additions read as follows:

§ 250.107 What must I do to protect health, safety, property, and the environment?

(a) * * *

(3) Utilizing recognized engineering practices that reduce risks to the lowest level practicable when conducting design, fabrication, installation, operation, inspection, repair, and maintenance activities; and

(4) Complying with all lease, plan, and permit terms and conditions.

* * * * *

(e) The BSEE may issue orders to ensure compliance with this part, including but not limited to, orders to produce and submit records and to inspect, repair, and or replace

equipment. The BSEE may also issue orders to shut-in operations of a component or facility because of a threat of serious, irreparable, or immediate harm to health, safety, property, or the environment posed by those operations or because the operations violate law, including a regulation, order, or provision of a lease, plan, or permit.

■ 4. In § 250.125, revise the table in paragraph (a) to read as follows:

§ 250.125 Service fees.

(a) * * *

Service—processing of the following:	Fee amount	30 CFR citation
(1) Suspension of Operations/Suspension of Production (SOO/SOP) Request.	\$2,123	§ 250.171(e).
(2) Deepwater Operations Plan (DWOP)	\$3,599	§ 250.292(q).
(3) Application for Permit to Drill (APD); Form BSEE-0123.	\$2,113 <i>for initial applications only; no fee for revisions</i>	§ 250.410(d); § 250.513(b); § 250.1617(a).
(4) Application for Permit to Modify (APM); Form BSEE-0124.	\$125	§ 250.465(b); § 250.513(b); § 250.613(b); § 250.1618(a); § 250.1704(g).
(5) New Facility Production Safety System Application for facility with more than 125 components.	\$5,426 A component is a piece of equipment or ancillary system that is protected by one or more of the safety devices required by API RP 14C (as incorporated by reference in § 250.198); \$14,280 additional fee will be charged if BSEE deems it necessary to visit a facility offshore, and \$7,426 to visit a facility in a shipyard.	§ 250.802(e).
(6) New Facility Production Safety System Application for facility with 25–125 components.	\$1,314 Additional fee of \$8,967 will be charged if BSEE deems it necessary to visit a facility offshore, and \$5,141 to visit a facility in a shipyard.	§ 250.802(e).
(7) New Facility Production Safety System Application for facility with fewer than 25 components.	\$652	§ 250.802(e).
(8) Production Safety System Application—Modification with more than 125 components reviewed.	\$605	§ 250.802(e).
(9) Production Safety System Application—Modification with 25–125 components reviewed.	\$217	§ 250.802(e).
(10) Production Safety System Application—Modification with fewer than 25 components reviewed.	\$92	§ 250.802(e).
(11) Platform Application—Installation—Under the Platform Verification Program.	\$22,734	§ 250.905(l).
(12) Platform Application—Installation—Fixed Structure Under the Platform Approval Program.	\$3,256	§ 250.905(l).
(13) Platform Application—Installation—Caisson/Well Protector.	\$1,657	§ 250.905(l)
(14) Platform Application—Modification/Repair	\$3,884	§ 250.905(l).
(15) New Pipeline Application (Lease Term)	\$3,541	§ 250.1000(b).
(16) Pipeline Application—Modification (Lease Term)	\$2,056	§ 250.1000(b).
(17) Pipeline Application—Modification (ROW)	\$4,169	§ 250.1000(b).
(18) Pipeline Repair Notification	\$388	§ 250.1008(e).
(19) Pipeline Right-of-Way (ROW) Grant Application	\$2,771	§ 250.1015(a).
(20) Pipeline Conversion of Lease Term to ROW	\$236	§ 250.1015(a).
(21) Pipeline ROW Assignment	\$201	§ 250.1018(b).

Service—processing of the following:	Fee amount	30 CFR citation
(22) 500 Feet From Lease/Unit Line Production Request	\$3,892	§ 250.1156(a).
(23) Gas Cap Production Request	\$4,953	§ 250.1157.
(24) Downhole Commingling Request	\$5,779	§ 250.1158(a).
(25) Complex Surface Commingling and Measurement Application.	\$4,056	§ 250.1202(a); § 250.1203(b); § 250.1204(a).
(26) Simple Surface Commingling and Measurement Application.	\$1,371	§ 250.1202(a); § 250.1203(b); § 250.1204(a).
(27) Voluntary Unitization Proposal or Unit Expansion	\$12,619	§ 250.1303(d).
(28) Unitization Revision	\$896	§ 250.1303(d).
(29) Application to Remove a Platform or Other Facility	\$4,684	§ 250.1727.
(30) Application to Decommission a Pipeline (Lease Term).	\$1,142	§ 250.1751(a) or § 250.1752(a).
(31) Application to Decommission a Pipeline (ROW)	\$2,170	§ 250.1751(a) or § 250.1752(a).

■ 5. Amend § 250.198 by revising paragraphs (h)(51), (63), (68), and (70) and adding paragraphs (h)(89) through (94) to read as follows:

§ 250.198 Documents incorporated by reference.

* * * * *

(h) * * *

(51) API RP 2RD, Design of Risers for Floating Production Systems (FPSs) and Tension-Leg Platforms (TLPs), First Edition, June 1998; Reaffirmed May 2006, Errata June 2009; incorporated by reference at §§ 250.292, 250.733, 250.800, 250.901, and 250.1002;

* * * * *

(63) API Standard 53, Blowout Prevention Equipment Systems for Drilling Wells, Fourth Edition, November 2012; incorporated by reference at §§ 250.730, 250.737, and 250.739;

* * * * *

(68) ANSI/API Spec. Q1, Specification for Quality Programs for the Petroleum, Petrochemical and Natural Gas Industry, ISO TS 29001:2007 (Identical), Petroleum, petrochemical and natural gas industries—Sector specific requirements—Requirements for product and service supply organizations, Eighth Edition, December 2007, Effective Date: June 15, 2008; incorporated by reference at §§ 250.730 and 250.806;

* * * * *

(70) ANSI/API Spec. 6A, Specification for Wellhead and Christmas Tree Equipment, Nineteenth Edition, July 2004; Effective Date: February 1, 2005; Contains API Monogram Annex as Part of U.S. National Adoption; ISO 10423:2003 (Modified), Petroleum and natural gas industries—Drilling and production equipment—Wellhead and Christmas tree equipment; Errata 1, September 2004, Errata 2, April 2005, Errata 3, June 2006, Errata 4, August 2007, Errata 5, May 2009; Addendum 1, February 2008; Addendum 2, 3, and 4, December 2008; incorporated by reference at §§ 250.730, 250.806, and 250.1002;

* * * * *

(89) ANSI/API Spec. 11D1, Packers and Bridge Plugs, ISO 14310:2008 (Identical), Petroleum and natural gas industries—Downhole equipment—Packers and bridge plugs, Second Edition, Effective Date: January 1, 2010; incorporated by reference at §§ 250.518, 250.619, and 250.1703;

(90) ANSI/API Spec. 16A, Specification for Drill-through Equipment, Third Edition, June 2004; incorporated by reference at § 250.730;

(91) ANSI/API Spec. 16C, Specification for Choke and Kill Systems, First Edition, January 1993; incorporated by reference at § 250.730;

(92) API Spec. 16D, Specification for Control Systems for Drilling Well control Equipment and Control Systems

for Diverter Equipment, Second Edition, July 2004; incorporated by reference at § 250.730;

(93) ANSI/API Spec. 17D, Design and Operation of Subsea Production Systems—Subsea Wellhead and Tree Equipment, Second Edition; May 2011; ISO 13628–4 (Identical), Design and operation of subsea production systems—Part 4: Subsea wellhead and tree equipment; incorporated by reference at § 250.730; and

(94) ANSI/API RP 17H, Remotely Operated Vehicle Interfaces on Subsea Production Systems, ISO 13628–8:2002 (Identical), Petroleum and natural gas industries—Design and operation of subsea production systems—Part 8: Remotely Operated Vehicle (ROV) interfaces on subsea production systems, First Edition, July 2004, Reaffirmed: January 2009; incorporated by reference at § 250.734.

* * * * *

■ 6. In § 250.199, revise paragraph (e) to read as follows:

§ 250.199 Paperwork Reduction Act statements—information collection.

* * * * *

(e) BSEE is collecting this information for the reasons given in the following table:

30 CFR subpart, title and/or BSEE Form (OMB Control No.)	BSEE collects this information and uses it to:
(1) Subpart A, General (1014–0022), including Forms BSEE–0132, Evacuation Statistics; BSEE–0143, Facility/Equipment Damage Report; BSEE–1832, Notification of Incidents of Noncompliance.	(i) Determine that activities on the OCS comply with statutory and regulatory requirements; are safe and protect the environment; and result in diligent development and production on OCS leases. (ii) Support the unproved and proved reserve estimation, resource assessment, and fair market value determinations. (iii) Assess damage and project any disruption of oil and gas production from the OCS after a major natural occurrence.
(2) Subpart B, Plans and Information (1014–0024)	Evaluate Deepwater Operations Plans for compliance with statutory and regulatory requirements.

30 CFR subpart, title and/or BSEE Form (OMB Control No.)	BSEE collects this information and uses it to:
(3) Subpart C, Pollution Prevention and Control (1014-0023)	(i) Evaluate measures to prevent unauthorized discharge of pollutants into the offshore waters. (ii) Ensure action is taken to control pollution.
(4) Subpart D, Oil and Gas and Drilling Operations (1014-0018), including Forms BSEE-0125, End of Operations Report; BSEE-0133, Well Activity Report; and BSEE-0133S, Open Hole Data Report.	(i) Evaluate the equipment and procedures to be used in drilling operations on the OCS. (ii) Ensure that drilling operations meet statutory and regulatory requirements.
(5) Subpart E, Oil and Gas Well-Completion Operations (1014-0004) ..	(i) Evaluate the equipment and procedures to be used in well-completion operations on the OCS. (ii) Ensure that well-completion operations meet statutory and regulatory requirements.
(6) Subpart F, Oil and Gas Well Workover Operations (1014-0001)	(i) Evaluate the equipment and procedures to be used during well-workover operations on the OCS. (ii) Ensure that well-workover operations meet statutory and regulatory requirements.
(7) Subpart G, Blowout Preventer Systems (1014-xxxx), including Form BSEE-0144, Rig Movement Notification Report.	(i) Evaluate the equipment and procedures to be used during well drilling, completion, workover, and abandonment operations on the OCS. (ii) Ensure that well operations meet statutory and regulatory requirements.
(8) Subpart H, Oil and Gas Production Safety Systems (1014-0003)	(i) Evaluate the equipment and procedures that will be used during production operations on the OCS. (ii) Ensure that production operations meet statutory and regulatory requirements.
(9) Subpart I, Platforms and Structures (1014-0011)	(i) Evaluate the design, fabrication, and installation of platforms on the OCS. (ii) Ensure the structural integrity of platforms installed on the OCS.
(10) Subpart J, Pipelines and Pipeline Rights-of-Way (1014-0016), including Form BSEE-0149, Assignment of Federal OCS Pipeline Right-of-Way Grant.	(i) Evaluate the design, installation, and operation of pipelines on the OCS. (ii) Ensure that pipeline operations meet statutory and regulatory requirements.
(11) Subpart K, Oil and Gas Production Rates (1014-0019), including Forms BSEE-0126, Well Potential Test Report and BSEE-0128, Semiannual Well Test Report.	(i) Evaluate production rates for hydrocarbons produced on the OCS. (ii) Ensure economic maximization of ultimate hydrocarbon recovery.
(12) Subpart L, Oil and Gas Production Measurement, Surface Commingling, and Security (1014-0002).	(i) Evaluate the measurement of production, commingling of hydrocarbons, and site security plans. (ii) Ensure that produced hydrocarbons are measured and commingled to provide for accurate royalty payments and security.
(13) Subpart M, Unitization (1014-0015)	(i) Evaluate the unitization of leases. (ii) Ensure that unitization prevents waste, conserves natural resources, and protects correlative rights.
(14) Subpart N, Remedies and Penalties	(The requirements in subpart N are exempt from the Paperwork Reduction Act of 1995 according to 5 CFR 1320.4).
(15) Subpart O, Well Control and Production Safety Training (1014-0008).	(i) Evaluate training program curricula for OCS workers, course schedules, and attendance. (ii) Ensure that training programs are technically accurate and sufficient to meet statutory and regulatory requirements, and that workers are properly trained.
(16) Subpart P, Sulphur Operations (1014-0006)	(i) Evaluate sulphur exploration and development operations on the OCS. (ii) Ensure that OCS sulphur operations meet statutory and regulatory requirements and will result in diligent development and production of sulphur leases.
(17) Subpart Q, Decommissioning Activities (1014-0010)	Ensure that decommissioning activities, site clearance, and platform or pipeline removal are properly performed to meet statutory and regulatory requirements and do not conflict with other users of the OCS.
(18) Subpart S, Safety and Environmental Management Systems (1014-0017), including Form BSEE-0131, Performance Measures Data.	(i) Evaluate operators' policies and procedures to assure safety and environmental protection while conducting OCS operations (including those operations conducted by contractor and subcontractor personnel). (ii) Evaluate Performance Measures Data relating to risk and number of accidents, injuries, and oil spills during OCS activities.
(19) Application for Permit to Drill (APD, Revised APD), Form BSEE-0123; and Supplemental APD Information Sheet, Form BSEE-0123S, and all supporting documentation (1014-0025).	(i) Evaluate and approve the adequacy of the equipment, materials, and/or procedures that the lessee or operator plans to use during drilling. (ii) Ensure that applicable OCS operations meet statutory and regulatory requirements.

30 CFR subpart, title and/or BSEE Form (OMB Control No.)	BSEE collects this information and uses it to:
(20) Application for Permit to Modify (APM), Form BSEE-0124, and supporting documentation (1014-0026).	(i) Evaluate and approve the adequacy of the equipment, materials, and/or procedures that the lessee or operator plans to use during drilling and to evaluate well plan modifications and changes in major equipment. (ii) Ensure that applicable OCS operations meet statutory and regulatory requirements.

- 7. Amend § 250.292 by:
 - a. Removing the word “and” from the end of paragraph (o);
 - b. Redesignating paragraph (p) as (q); and
 - c. Adding new paragraph (p).
The addition reads as follows:

§ 250.292 What must the DWOP contain?
* * * * *

(p) If you propose to use a pipeline free standing hybrid riser (FSHR) that utilizes a critical chain, wire rope, or synthetic tether to connect the top of the riser to a buoyancy air can, provide the following information in your DWOP in the discussions required by paragraphs (f) and (g) of this section:

- (1) A detailed description and drawings of the FSHR, buoy and the tether system;
- (2) Detailed information on the design, fabrication, and installation of the FSHR, buoy and tether system, including pressure ratings, fatigue life, and yield strengths;
- (3) A description of how you met the design requirements, load cases, and allowable stresses for each load case according to API RP 2RD (as incorporated by reference in § 250.198);
- (4) Detailed information regarding the tether system used to connect the FSHR to a buoyancy air can;
- (5) Descriptions of your monitoring system and monitoring plan to monitor the pipeline FSHR and tether for fatigue, stress, and any other abnormal condition (e.g., corrosion) that may negatively impact the riser or tether; and
- (6) Documentation that the tether system and connection accessories for the pipeline FSHR have been certified by an approved classification society or equivalent and verified by the CVA required in Subpart I; and

* * * * *

- 8. Revise § 250.400 to read as follows:

§ 250.400 General Requirements.

Drilling operations must be conducted in a safe manner to protect against harm or damage to life (including fish and other aquatic life), property, natural resources of the Outer Continental Shelf (OCS), including any mineral deposits (in areas leased and not leased), the National security or defense, or the

marine, coastal, or human environment. In addition to the requirements of this subpart, you must also follow the applicable requirements of Subpart G.

§§ 250.401 through 250.403 [Removed and Reserved]

- 9a. Remove and reserve §§ 250.401 through 250.403, and 250.406.

§ 250.406 [Removed and Reserved]

- 9b. Remove and reserve § 250.406.
- 10. Revise § 250.411 to read as follows:

§ 250.411 What information must I submit with my application?

In addition to forms BSEE-0123 and BSEE-0123S, you must include the information required in this subpart and Subpart G, including the following:

Information that you must include with an APD	Where to find a description
(a) Plat that shows locations of the proposed well	§ 250.412
(b) Design criteria used for the proposed well	§ 250.413
(c) Drilling prognosis	§ 250.414
(d) Casing and cementing programs	§ 250.415
(e) Diverter systems descriptions	§ 250.416
(f) BOP system descriptions	§ 250.731
(g) Requirements for using an MODU, and	§ 250.713
(h) Additional information	§ 250.418

- 11. In § 250.413, revise paragraph (g) to read as follows:

§ 250.413 What must my description of well drilling design criteria address?

* * * * *

(g) A single plot containing curves for estimated pore pressures, formation fracture gradients, proposed drilling fluid weights, maximum equivalent circulating density, and casing setting depths in true vertical measurements;

* * * * *

- 12. Amend § 250.414 by revising paragraphs (c), (h), and (i) and adding paragraphs (j) and (k) to read as follows:

§ 250.414 What must my drilling prognosis include?

* * * * *

(c) Planned safe drilling margins between proposed drilling fluid weights and the estimated pore pressures, and proposed drilling fluid weights and the lesser of estimated fracture gradients or casing shoe pressure integrity test. Your safe drilling margins must meet the following conditions:

- (1) Static downhole mud weight must be greater than estimated pore pressure;
- (2) Static downhole mud weight must be a minimum of one-half pound per gallon below the lesser of the casing shoe pressure integrity test or the lowest estimated fracture gradient;
- (3) The equivalent circulating density must be below the lesser of the casing shoe pressure integrity test or the lowest estimated fracture gradient; and
- (4) When determining the pore pressure and lowest estimated fracture gradient for a specific interval, you must consider related hole behavior observations.

* * * * *

(h) A list and description of all requests for using alternate procedures or departures from the requirements of this subpart in one place in the APD. You must explain how the alternate procedures afford an equal or greater degree of protection, safety, or performance, or why the departures are requested;

- (i) Projected plans for well testing (refer to § 250.460);
- (j) The type of wellhead system and liner hanger system to be installed and a descriptive schematic, which includes but is not limited to pressure ratings, dimensions, valves, load shoulders, and locking mechanisms, if applicable; and
- (k) Any additional information required by the District Manager.

- 13. In § 250.415, revise paragraph (a) to read as follows:

§ 250.415 What must my casing and cementing programs include?

* * * * *

- (a) The following well design information:
 - (1) Hole sizes;
 - (2) Bit depths (including measured and true vertical depth (TVD));
 - (3) Casing information including sizes, weights, grades, collapse and burst values, types of connection, and

setting depths (measured and TVD) for all sections of each casing interval; and
 (4) Locations of any installed rupture disks (indicate if burst or collapse and rating);

■ 14. Revise § 250.416 to read as follows:

§ 250.416 What must I include in the diverter description?

You must include in the diverter descriptions:

(a) A description of the diverter system and its operating procedures;

(b) A schematic drawing of the diverter system (plan and elevation views) that shows:

(1) The size of the annular BOP installed in the diverter housing;

(2) Spool outlet internal diameter(s);

(3) Diverter-line lengths and diameters; burst strengths and radius of curvature at each turn; and

(4) Valve type, size working pressure rating, and location.

§ 250.417 [Removed and Reserved]

■ 15. Remove and reserve § 250.417.

■ 16. In § 250.418, revise paragraph (g) to read as follows:

§ 250.418 What additional information must I submit with my APD?

(g) A request for approval if you plan to wash out or displace cement to facilitate casing removal upon well abandonment. Your request must include a description of how far below the mudline you propose to displace cement and how you will visually monitor returns;

■ 17. Amend § 250.420 by:

■ a. Revising the introductory text and paragraph (a)(5);

■ b. Redesignating paragraph (a)(6) as (a)(7);

■ c. Adding new paragraph (a)(6) and paragraph (b)(4); and

■ d. Revising paragraph (c).

The revisions and additions read as follows:

§ 250.420 What well casing and cementing requirements must I meet?

You must case and cement all wells. Your casing and cementing programs must meet the applicable requirements of this subpart and of subpart G.

(a) * * *

(5) Support unconsolidated sediments;

(6) Provide adequate centralization to ensure proper cementation; and

(b) * * *

(4) If you need to substitute a different size, grade, or weight of casing than what was approved in your APD, you must contact the District Manager for approval prior to installing the casing.

(c) *Cementing requirements.* (1) You must design and conduct your cementing jobs so that cement composition, placement techniques, and waiting times ensure that the cement placed behind the bottom 500 feet of casing attains a minimum compressive strength of 500 psi before drilling out the casing or before commencing completion operations.

(2) You must use a weighted fluid to maintain an overbalanced hydrostatic pressure during the cement setting time, except when cementing casings or liners in riserless hole sections.

■ 18. In § 250.421, revise paragraphs (b) and (f) to read as follows:

§ 250.421 What are the casing and cementing requirements by type of casing string?

* * * * *

Casing type	Casing requirements	Cementing requirements
(b) Conductor ...	Design casing and select setting depths based on relevant engineering and geologic factors. These factors include the presence or absence of hydrocarbons, potential hazards, and water depths. Set casing immediately before drilling into formations known to contain oil or gas. If you encounter oil or gas or unexpected formation pressure before the planned casing point, you must set casing immediately and set it above the encountered zone.	Use enough cement to fill the calculated annular space back to the mudline. Verify annular fill by observing cement returns. If you cannot observe cement returns, use additional cement to ensure fill-back to the mudline. For drilling on an artificial island or when using a well cellar, you must discuss the cement fill level with the District Manager.
(f) Liners	If you use a liner as surface casing, you must set the top of the liner at least 200 feet above the previous casing/liner shoe. If you use a liner as an intermediate string below a surface string or production casing below an intermediate string, you must set the top of the liner at least 100 feet above the previous casing shoe. You may not use a liner as conductor casing	Same as cementing requirements for specific casing types. For example, a liner used as intermediate casing must be cemented according to the cementing requirements for intermediate casing.

■ 19. Revise § 250.423 to read as follows:

§ 250.423 What are the requirements for casing and liner installation?

You must ensure proper installation of casing in the subsea wellhead or liner in the liner hanger.

(a) You must ensure that the latching mechanisms or lock down mechanisms are engaged upon successfully installing and cementing the casing string.

(b) If you run a liner that has a latching mechanism or lock down mechanism, you must ensure that the latching mechanisms or lock down mechanisms are engaged upon successfully installing and cementing the liner.

(c) You must perform a pressure test on the casing seal assembly to ensure proper installation of casing or liner. You must perform this test for the

intermediate and production casing strings or liners.

(1) You must submit for approval with your APD, test procedures and criteria for a successful test.

(2) You must document all your test results and make them available to BSEE upon request.

§§ 250.424 through 250.426 [Removed and Reserved]

- 20. Remove and reserve §§ 250.424 through 250.426.
- 21. In § 250.427, revise paragraph (b) to read as follows:

§ 250.427 What are the requirements for pressure integrity tests?

- * * * * *
- (b) While drilling, you must maintain the safe drilling margins identified in § 250.414. When you cannot maintain the safe margins, you must suspend

drilling operations and remedy the situation.

- 22. In § 250.428, revise paragraphs (b) through (d) and add paragraph (k) to read as follows:

§ 250.428 What must I do in certain cementing and casing situations?

* * * * *

If you encounter the following situation: Then you must . . .

<p>(b) Need to change casing setting depths or hole interval drilling depth (for a BHA with an under-reamer, this means bit depth) more than 100 feet true vertical depth (TVD) from the approved APD due to conditions encountered during drilling operations.</p> <p>(c) Have indication of inadequate cement job (such as lost returns, no cement returns to mudline or expected height, cement channeling, or failure of equipment).</p> <p>(d) Inadequate cement job</p>	<p>Submit those changes to the District Manager for approval and include a certification by a professional engineer (PE) that he or she reviewed and approved the proposed changes.</p> <p>(1) Locate the top of cement by: (i) Running a temperature survey; (ii) Running a cement evaluation log; or (iii) Using a combination of these techniques.</p> <p>(2) Determine if your cement job is inadequate. If your cement job is determined to be inadequate, refer to paragraph (d) of this section.</p> <p>(3) If your cement job is determined to be adequate, report the results to the District Manager in your submitted WAR.</p> <p>Take remedial actions. The District Manager must review and approve all remedial actions before you may take them, unless immediate actions must be taken to ensure the safety of the crew or to prevent a well-control event. If you complete any immediate action to ensure the safety of the crew or to prevent a well-control event, submit a description of the action to the District Manager when that action is complete. Any changes to the well program will require submittal of a certification by a professional engineer (PE) certifying that he or she reviewed and approved the proposed changes, and must meet any other requirements of the District Manager.</p>
<p>(k) Plan to use a valve on the drive pipe during cementing operations for the conductor casing, surface casing, or liner.</p>	<p>Include a description of the plan in your APD. Your description must include a schematic of the valve and height above the water line. The valve must be remotely operated and full opening with visual observation while taking returns. The person in charge of observing returns must be in communication with the drill floor. You must record in your daily report and in the WAR if cement returns were observed. If cement returns are not observed, you must contact the District Manager and obtain approval of proposed plans to locate the top of cement before continuing with operations.</p>

§§ 250.440 through 250.451 [Removed and Reserved]

- 23. Remove the undesignated center heading “Blowout Preventer (BOP) System Requirements” and remove and reserve §§ 250.440 through 250.451.

§ 250.456 [Amended]

- 24. Amend § 250.456:
 - a. In paragraph (i), by adding the word “and” after the semi-colon
 - b. By removing paragraph (j); and
 - c. By redesignating paragraph (k) as (j).
- 25. Revise § 250.462 to read as follows.

§ 250.462 What are the source control and containment requirements?

For drilling operations using a subsea BOP or surface BOP on a floating facility, you must have the ability to control or contain a blowout event at the sea floor.

- (a) To determine your required source control and containment capabilities you must do the following:

- (1) Consider a scenario of the wellbore fully evacuated to reservoir fluids, with no restrictions in the well.
- (2) Evaluate the performance of the well as designed to determine if a full shut-in can be achieved without having reservoir fluids broach to the sea floor. If your evaluation indicates that the well can only be partially shut-in, then you must determine your ability to flow and capture the residual fluids to a surface production and storage system.
 - (b) You must have access to and ability to deploy Source Control and Containment Equipment (SCCE) necessary to regain control of the well. SCCE means the capping stack, cap and flow system, containment dome, and/or other subsea and surface devices, equipment, and vessels whose collective purpose is to control a spill source and stop the flow of fluids into the environment or to contain fluids escaping into the environment. This equipment must include, but is not limited to, the following:

- (1) Subsea containment and capture equipment, including containment domes and capping stacks;
- (2) Subsea utility equipment, including hydraulic power, hydrate control, and dispersant injection equipment;
- (3) Riser systems;
- (4) Remotely operated vehicles (ROVs);
- (5) Capture vessels;
- (6) Support vessels; and
- (7) Storage facilities.
- (c) You must submit a description of your source control and containment capabilities to the Regional Supervisor and receive approval before BSEE will approve your APD, Form BSEE-0123. The description of your containment capabilities must contain the following:
 - (1) Your source control and containment capabilities for controlling and containing a blowout event at the seafloor,

(2) A discussion of the determination required in paragraph (a) of this section, and

(3) Information showing that you have access to and ability to deploy all equipment required by paragraph (b) of this section.

(d) You must contact the District Manager and Regional Supervisor for reevaluation of your source control and containment capabilities if your:

- (1) Well design changes, or
- (2) Approved source control and containment equipment is out of service.

(e) You must maintain, test, and inspect the source control and containment equipment identified in the following table according to these requirements:

Equipment	Requirements, you must:	Additional information
(1) Capping stacks	<ul style="list-style-type: none"> (i) Function test all pressure holding critical components on a quarterly frequency (not to exceed 104 days between tests). (ii) Pressure test pressure holding critical components on a bi-annual basis, but not later than 210 days from the last pressure test. All pressure testing must be witnessed by BSEE and a BSEE- approved verification organization. (iii) Notify BSEE at least 21 days prior to commencing any pressure testing. 	<p>Pressure holding critical components are those components that will experience wellbore pressure during a shut-in after being functioned.</p> <p>Pressure holding critical components are those components that will experience wellbore pressure during a shut-in. These components include, but are not limited to: All blind rams, wellhead connectors, and outlet valves.</p>
(2) Production Safety Systems used for flow and capture operations.	<ul style="list-style-type: none"> (i) Meet or exceed the requirements set forth in 30 CFR 250.800–250.808, Subpart H. (ii) Have all equipment unique to containment operations available for inspection at all times.. 	
(3) Subsea utility equipment	<p>Have all equipment unique to containment operations available for inspection at all times.</p>	<p>Subsea utility equipment includes, but is not limited to: Hydraulic power sources, debris removal, hydrate control equipment, and dispersant injection equipment.</p>

■ 26. In § 250.465, revise paragraph (b)(3) to read as follows:

§ 250.465 When must I submit an Application for Permit to Modify (APM) or an End of Operations Report to BSEE?

* * * * *

(b) * * *

(3) Within 30 days after completing this work, you must submit an End of Operations Report (EOR), Form BSEE–0125, as required under § 250.744.

§§ 250.466 through 250.469 [Removed and Reserved]

■ 27. Remove and reserve §§ 250.466 through 250.469.

■ 28. Revise § 250.500 to read as follows:

§ 250.500 General requirements.

Well-completion operations must be conducted in a manner to protect against harm or damage to life (including fish and other aquatic life), property, natural resources of the OCS, including any mineral deposits (in areas leased and not leased), the National security or defense, or the marine, coastal, or human environment. In addition to the requirements of this subpart, you must also follow the applicable requirements of Subpart G.

§§ 250.502 and 250.506 [Removed and Reserved]

■ 29. Remove and reserve §§ 250.502 and 250.506.

§ 250.514 [Amended]

■ 30. In § 250.514, remove paragraph (d).

§§ 250.515 through 250.517 [Removed and Reserved]

■ 31. Remove and reserve §§ 250.515 through 250.517.

■ 32. Amend § 250.518 by:

- a. Removing paragraph (b);
- b. Redesignating paragraphs (c) through (e) as paragraphs (b) through (d); and
- c. Adding new paragraph (e) and paragraph (f).

The additions read as follows:

§ 250.518 Tubing and wellhead equipment.

* * * * *

(e) Installed packers and bridge plugs must meet the following:

(1) All packers and bridge plugs must comply with API Spec. 11D1 (as incorporated by reference in § 250.198);

(2) During well completion operations, the production packer must be set at a depth that will allow for a column of weighted fluids to be placed above the packer that will exert a hydrostatic force greater than or equal to the force created by the reservoir pressure below the packer;

(3) The production packer must be set as close as practically possible to the perforated interval; and

(4) The production packer must be set at a depth that is within the cemented interval of the selected casing section.

(f) Your APM must include a description and calculations for how

you determined the production packer setting depth.

■ 33. Revise § 250.600 to read as follows:

§ 250.600 General requirements.

Well-workover operations must be conducted in a manner to protect against harm or damage to life (including fish and other aquatic life), property, natural resources of the Outer Continental Shelf (OCS) including any mineral deposits (in areas leased and not leased), the National security or defense, or the marine, coastal, or human environment. In addition to the requirements of this subpart, you must also follow the applicable requirements of subpart G.

§ 250.602 [Removed and Reserved]

■ 34a. Remove and reserve § 250.602.

§ 250.606 [Removed and Reserved]

■ 34b. Remove and reserve § 250.606.

§ 250.614 [Amended]

■ 35. In § 250.614, remove paragraph (d).

§ 250.615 [Removed and Reserved]

■ 36. Remove and reserve § 250.615.

■ 37. Amend § 250.616 by:

- a. Revising the section heading;
- b. Removing paragraphs (a) through (e); and
- c. Redesignating paragraphs (f) through (h) as paragraphs (a) through (c).

The revision reads as follows:

§ 250.616 Coiled tubing and snubbing operations.

* * * * *

§§ 250.617 and 250.618 [Removed and Reserved]

- 38. Remove and reserve §§ 250.617 and 250.618.
- 39. Amend § 250.619 by:
 - a. Removing paragraph (b);
 - b. Redesignating paragraphs (c) through (e) as paragraphs (b) through (d); and
 - c. Adding new paragraph (e) and paragraph (f).

The additions read as follows;

§ 250.619 Tubing and wellhead equipment.

* * * * *

(e) If you pull and reinstall packers and bridge plugs, you must meet the following:

(1) All packers and bridge plugs must comply with API Spec. 11D1 (as incorporated by reference in § 250.198);

(2) The production packer must be set at a depth that will allow for a column of weighted fluids to be placed above the packer during well completion operations that will exert a hydrostatic force greater than or equal to the force created by the reservoir pressure below the packer;

(3) The production packer must be set as close as practically possible to the perforated interval; and

(4) The production packer must be set at a depth that is within the cemented interval of the selected casing section.

(f) Your APM must include a description and calculations for how you determined the production packer setting depth.

- 40. Add subpart G to read as follows:

Subpart G—Well Operations and Equipment**General Requirements**

Sec.

- 250.700 What operations and equipment does this subpart cover?
- 250.701 May I use alternate procedures or equipment during operations?
- 250.702 May I obtain departures from these requirements?
- 250.703 What must I do to keep wells under control?

Rig Requirements

- 250.710 What instructions must be given to personnel engaged in well operations?
- 250.711 What are the requirements for well-control drills?
- 250.712 What rig unit movements must I report?
- 250.713 What must I provide if I plan to use a mobile offshore drilling unit (MODU) or lift boat for well operations?
- 250.714 Do I have to develop a dropped objects plan?
- 250.715 Do I need a global positioning system (GPS) for MODUs and jack-ups?

Well Operations

- 250.720 When and how must I secure a well?
- 250.721 What are the requirements for pressure testing casing and liners?
- 250.722 What are the requirements for prolonged operations in a well?
- 250.723 What additional safety measures must I take when I conduct operations on a platform that has producing wells or has other hydrocarbon flow?
- 250.724 What are the real-time monitoring requirements?

Blowout Preventer (BOP) System Requirements

- 250.730 What are the general requirements for BOP systems and system components?
- 250.731 What information must I submit for BOP systems and system components?
- 250.732 What are the BSEE-approved verification organization requirements for BOP systems and system components?
- 250.733 What are the requirements for a surface BOP stack?
- 250.734 What are the requirements for a subsea BOP system?
- 250.735 What associated systems and related equipment must all BOP systems include?
- 250.736 What are the requirements for choke manifolds, kelly valves inside BOPs, and drill string safety valves?
- 250.737 What are the BOP system testing requirements?
- 250.738 What must I do in certain situations involving BOP equipment or systems?
- 250.739 What are the BOP maintenance and inspection requirements?

Records and Reporting

- 250.740 What records must I keep?
- 250.741 How long must I keep records?
- 250.742 What well records am I required to submit?
- 250.743 What are the well activity reporting requirements?
- 250.744 What are the end of operation reporting requirements?
- 250.745 What other well records could I be required to submit?
- 250.746 What are the recordkeeping requirements for casing, liner, and BOP tests, and inspections of BOP systems and marine risers?

Subpart G—Well Operations and Equipment**General Requirements****§ 250.700 What operations and equipment does this subpart cover?**

This subpart covers operations and equipment associated with drilling, completion, workover, and decommissioning activities. This subpart includes regulations applicable to drilling, completion, workover, and decommissioning activities in addition to applicable regulations contained in subparts D, E, F, and Q of this part unless explicitly stated otherwise.

§ 250.701 May I use alternate procedures or equipment during operations?

You may use alternate procedures or equipment during operations after receiving approval as described in § 250.141 of this part. You must identify and discuss your proposed alternate procedures or equipment in your Application for Permit to Drill (APD) (Form BSEE-0123) (see § 250.414(h)) or your Application for Permit to Modify (APM) (Form BSEE-0124). Procedures for obtaining approval of alternate procedures or equipment are described in § 250.141 of this part.

§ 250.702 May I obtain departures from these requirements?

You may apply for a departure from these requirements as described in § 250.142. Your request must include a justification showing why the departure is necessary. You must identify and discuss the departure you are requesting in your APD (see § 250.414(h)) or your APM.

§ 250.703 What must I do to keep wells under control?

You must take the necessary precautions to keep wells under control at all times, including:

(a) Use recognized engineering practices that reduce risks to the lowest level practicable when monitoring and evaluating well conditions and to minimize the potential for the well to flow or kick;

(b) Have a person onsite during operations who represents your interests and can fulfill your responsibilities;

(c) Ensure that the toolpusher, operator's representative, or a member of the rig crew maintains continuous surveillance on the rig floor from the beginning of operations until the well is completed or abandoned, unless you have secured the well with blowout preventers (BOPs), bridge plugs, cement plugs, or packers;

(d) Use personnel trained according to the provisions of Subparts O and S;

(e) Use and maintain equipment and materials necessary to ensure the safety and protection of personnel, equipment, natural resources, and the environment; and

(f) Use equipment that has been designed, tested, and rated for the most extreme service conditions to which it will be exposed while in service.

Rig Requirements**§ 250.710 What instructions must be given to personnel engaged in well operations?**

Prior to engaging in well operations, personnel must be instructed in:

(a) *Date and time of safety meetings.* The safety requirements for the

operations to be performed, possible hazards to be encountered, and general safety considerations to protect personnel, equipment, and the environment as required by subpart S of this part. Date and time of safety meetings must be recorded and available at the facility for review by BSEE representatives.

(b) *Well control.* You must prepare a well-control plan for each well. Each well-control plan must contain instructions for personnel about the use of each well-control component of your BOP, procedures that describe how personnel will seal the wellbore and shear pipe before maximum anticipated surface pressure (MASP) conditions are exceeded, assignments for each crew member, and a schedule for completion of each assignment. You must keep a copy of your well-control plan on the rig at all times, and make it available to BSEE upon request. You must post a copy of the well-control plan on the rig floor.

§ 250.711 What are the requirements for well-control drills?

You must conduct a weekly well-control drill with all personnel engaged in well operations. Your drill must familiarize personnel engaged in well operations with their roles and functions so that they can perform their duties promptly and efficiently as outlined in the well-control plan required by § 250.710.

(a) *Timing of drills.* You must conduct each drill during a period of activity that minimizes the risk to operations. The timing of your drills must cover a range of different operations, including drilling with a diverter, on-bottom drilling, and tripping. The same drill may not be repeated consecutively.

(b) *Recordkeeping requirements.* For each drill, you must record the following in the daily report:

- (1) Date, time, and type of drill conducted;
- (2) The amount of time it took to be ready to close the diverter or use each well-control component of BOP system; and
- (3) The total time to complete the entire drill.

(c) *A BSEE ordered drill.* A BSEE representative may require you to conduct a well-control drill during a BSEE inspection. The BSEE representative will consult with your onsite representative before requiring the drill.

§ 250.712 What rig unit movements must I report?

(a) You must report the movement of all rig units on and off locations to the

District Manager using Form BSEE-0144, Rig Movement Notification Report. Rig units include MODUs, platform rigs, snubbing units, wire-line units used for non-routine operations, and coiled tubing units. You must inform the District Manager 72 hours before:

- (1) The arrival of a rig unit on location;
- (2) The movement of a rig unit to another slot. For movements that will occur less than 72 hours after initially moving onto location (e.g., coiled tubing and batch operations), you may include your anticipated movement schedule on Form BSEE-0144; or
- (3) The departure of a rig unit from the location.

(b) You must provide the District Manager with the rig name, lease number, well number, and expected time of arrival or departure.

(c) If a MODU or platform rig is to be warm or cold stacked, you must inform the District Manager;

- (1) Where the MODU or platform rig is coming from;
- (2) The location of where the MODU or platform rig will be positioned;
- (3) Whether the MODU or platform rig will be manned or unmanned; and
- (4) If the location for stacking the MODU or platform rig changes.

(d) Prior to resuming operations after stacking, you must notify the appropriate District Manager of any construction, repairs, or modifications associated with the drilling package made to the MODU or platform rig;

(e) If a drilling rig is entering OCS waters, you must inform the District Manager where the drilling rig is coming from.

(f) If you change your anticipated date for initially moving on or off location by more than 24 hours, you must submit an updated Form BSEE-0144, Rig Movement Notification Report.

§ 250.713 What must I provide if I plan to use a mobile offshore drilling unit (MODU) or lift boat for well operations?

If you plan to use a MODU or lift boat for well operations, you must provide:

(a) *Fitness requirements.* Information and data to demonstrate the capability to perform at the proposed location. This information must include the most extreme environmental and operational conditions that the unit is designed to withstand, including the minimum air gap necessary for both hurricane and non-hurricane seasons. If sufficient environmental information and data are not available at the time you submit your APD or APM, the District Manager may approve your APD or APM, but require you to collect and report this

information during operations. Under this circumstance, the District Manager has the right to revoke the approval of the APD or APM if information collected during operations shows that the MODU or lift boat is not capable of performing at the proposed location.

(b) *Foundation requirements.* Information to show that site-specific soil and oceanographic conditions are capable of supporting the proposed MODU or lift boat. If you provided sufficient site-specific information in your EP, DPP, or DOCD submitted to BOEM, you may reference that information. The District Manager may require you to conduct additional surveys and soil borings before approving the APD or APM if additional information is needed to make a determination that the conditions are capable of supporting the MODU, lift boat, or equipment installed on a subsea wellhead. For moored rigs, you must submit a plat of the rigs' anchor pattern approved in your EP, DPP, or DOCD in your APD or APM.

(c) *For frontier areas.* (1) If the design of the MODU or lift boat you plan to use in a frontier area is unique or has not been proven for use in the proposed environment, the District Manager may require you to submit a third-party review of the MODU or lift boat design. If required, you must obtain a third-party review of your MODU or lift boat similar to the process outlined in §§ 250.915 through 250.918. You may submit this information before submitting an APD or APM.

(2) If you plan to conduct operations in a frontier area, you must have a contingency plan that addresses design and operating limitations of the MODU or lift boat. Your plan must identify the actions necessary to maintain safety and prevent damage to the environment. Actions must include the suspension, curtailment, or modification of operations to remedy various operational or environmental situations (e.g., vessel motion, riser offset, anchor tensions, wind speed, wave height, currents, icing or ice-loading, settling, tilt or lateral movement, resupply capability).

(d) *Additional documentation.* You must provide the current Certificate of Inspection (for US Flagged vessels) or Certificate of Compliance (for Foreign Flagged vessels) from the USCG and Certificate of Classification. You must also provide current documentation of any operational limitations imposed by an appropriate classification society.

(e) *Dynamically positioned rig unit.* If you use a dynamically positioned MODU, you must include in your APD or APM your contingency plan for

moving off location in an emergency situation. Your plan must include, but not be limited to, such emergency events caused by storms, currents, station-keeping failure, power failure, and loss of well control. The District Manager may require your plan to include additional events and information.

(f) *Inspection of unit.* The MODU or lift boat must be available for inspection by the District Manager before commencing operations and at any time during operations.

(g) *Current Monitoring.* For water depths greater than 400 meters (1,312 feet), you must include in your APD or APM:

(1) A description of the specific current speeds that will cause you to implement rig shutdown, move-off procedures, or both; and

(2) A discussion of the specific measures you will take to curtail rig operations and move off location when such currents are encountered. You may use criteria such as current velocities, riser angles, watch circles, and remaining rig power to describe when these procedures or measures will be implemented.

§ 250.714 Do I have to develop a dropped objects plan?

If you use a floating rig unit in an area with subsea infrastructure, you must develop a dropped objects plan and make it available to BSEE upon request. This plan must be updated as the infrastructure on the seafloor changes. Your plan must include:

(a) A description and plot of the path the rig will take while running and pulling the riser;

(b) A plat showing the location of any subsea wells, production equipment, pipelines, and any other identified debris;

(c) Modeling of a dropped object's path with consideration given to metocean conditions for various material forms, such as a tubular (*e.g.*, riser or casing) and box (*e.g.*, BOP or tree);

(d) Communications, procedures, and delegated authorities established with

the production host facility to shut-in any active subsea wells, equipment, or pipelines in the event of a dropped object; and

(e) Any additional information required by the District Manager.

§ 250.715 Do I need a global positioning system (GPS) for MODUs and jack-ups?

All jack-up and moored MODUs must have a minimum of two functioning GPS transponders at all times, and you must provide to BSEE real-time access to the GPS data prior to each hurricane season.

(a) The GPS must be capable of monitoring the position and tracking the path in real-time if the moored MODU or jack-up moves from its location during a severe storm.

(b) You must install and protect the tracking system's equipment to minimize the risk of the system being disabled.

(c) You must place the GPS transponders in different locations for redundancy to minimize risk of system failure.

(d) Each GPS transponder must be capable of transmitting data for at least 7 days after a storm has passed.

(e) If the MODU is moved off location in the event of a storm, you must immediately begin to record the GPS location data.

(f) Contact the Regional Office and allow real-time access to the MODU or jack-up location data. When you contact the Regional Office, provide the following:

(1) Name of the lessee and operator with contact information;

(2) Rig/facility/platform name;

(3) Initial date and time; and

(4) How you will provide GPS real-time access.

Well Operations

§ 250.720 When and how must I secure a well?

(a) Whenever you interrupt operations, you must notify the District Manager. Before moving off the well, you must have two independent barriers installed, at least one of which must be a mechanical barrier, as approved by the

District Manager. You must install the barriers at appropriate depths within a properly cemented casing string or liner. Before removing a subsea BOP stack or surface BOP stack on a mudline suspension well, you must conduct a negative pressure test in accordance with § 250.721.

(1) The events that would cause you to interrupt operations and notify the District Manager include, but are not limited to, the following:

(i) Evacuation of the rig crew;

(ii) Inability to keep the rig on location;

(iii) Repair to major rig or well-control equipment; or

(iv) Observed flow outside the well's casing (*e.g.*, shallow water flow or bubbling).

(2) The District Manager may approve alternate procedures or barriers in accordance with § 250.141 if you do not have time to install the required barriers or if special circumstances occur.

(b) Before you displace kill-weight fluid from the wellbore and/or riser, thereby creating an underbalanced state, you must obtain approval from the BSEE District Manager. To obtain approval, you must submit with your APD or APM your reasons for displacing the kill-weight fluid and provide detailed step-by-step written procedures describing how you will safely displace these fluids. The step-by-step displacement procedures must address the following:

(1) Number and type of independent barriers, as described in § 250.420(b)(3), that are in place for each flow path that requires such barriers,

(2) Tests you will conduct to ensure integrity of independent barriers,

(3) BOP procedures you will use while displacing kill-weight fluids, and

(4) Procedures you will use to monitor the volumes and rates of fluids entering and leaving the wellbore.

§ 250.721 What are the requirements for pressure testing casing and liners?

(a) You must test each casing string that extends to the wellhead according to the following table:

Casing type	Minimum test pressure
(1) Drive or Structural,	Not required.
(2) Conductor, excluding subsea wellheads.	250 psi.
(3) Surface, Intermediate, and Production,	70 percent of its minimum internal yield.

(b) You must test each drilling liner and liner-lap to a pressure at least equal to the anticipated leak off pressure of the formation below that liner shoe, or subsequent liner shoes if set. You must

conduct this test before you continue operations in the well.

(c) You must test each production liner and liner-lap to a minimum of 500 psi above the formation fracture

pressure at the casing shoe into which the liner is lapped.

(d) The District Manager may approve or require other casing test pressures.

(e) If you plan to produce a well, you must:

(1) For a well that is fully cased and cemented, pressure test the entire well to maximum anticipated shut-in tubing pressure before perforating the casing or liner; or

(2) For an open-hole completion, pressure test the entire well to maximum anticipated shut-in tubing pressure before you drill the open-hole section.

(f) You may not resume operations until you obtain a satisfactory pressure test. If the pressure declines more than 10 percent in a 30-minute test, or if there is another indication of a leak, you must submit to the District Manager for approval your proposed plans to re-cement, repair the casing or liner, or run additional casing/liner to provide a proper seal. Your submittal must include a PE certification of your proposed plans.

(g) You must perform a negative pressure test on all wells that use a subsea BOP stack or wells with mudline suspension systems.

(1) You must perform a negative pressure test on your final casing string or liner. This test must be conducted after setting your second barrier just above the shoe track, but prior to conducting any completion operations.

(2) You must perform a negative test prior to unlatching the BOP at any point in the well. The negative test must be performed on those components, at a minimum, that will be exposed to the negative differential pressure that will occur when the BOP is disconnected.

(3) The District Manager may require you to perform additional negative pressure tests on other casing strings or liners (e.g., intermediate casing string or liner) or on wells with a surface BOP stack.

(4) You must submit for approval with your APD or APM, test procedures and criteria for a successful negative test. If any of your test procedures or criteria for a successful test change, you must submit for approval the changes in a revised APD or APM.

(5) You must document all your test results and make them available to BSEE upon request.

(6) If you have any indication of a failed negative pressure test, such as, but not limited to, pressure buildup or observed flow, you must immediately investigate the cause. If your investigation confirms that a failure occurred during the negative pressure test, you must:

(i) Correct the problem and immediately notify the appropriate BSEE District Manager; and

(ii) Submit a description of the corrective action taken and receive approval from the appropriate BSEE District Manager for the retest.

(7) You must have two barriers in place, as described in § 250.420(b)(3), at any time and for any well, prior to performing the negative pressure test.

(8) You must include documentation of the successful negative pressure test in the End-of-Operations Report (Form BSEE-0125).

§ 250.722 What are the requirements for prolonged operations in a well?

If wellbore operations continue within a casing or liner for more than 30 days from the previous pressure test of the well's casing or liner, you must:

(a) Stop operations as soon as practicable, and evaluate the effects of the prolonged operations on continued operations and the life of the well. At a minimum, you must:

(1) Evaluate the well's casing with either a pressure test, caliper tool, or imaging tool. On a case-by-case basis the District Manager may require a specific method of evaluation; and

(2) Report the results of your evaluation to the District Manager and obtain approval of those results before resuming operations. Your report must include calculations that show the well's integrity is above the minimum safety factors.

(b) If well integrity has deteriorated to a level below minimum safety factors, you must:

(1) Obtain approval from the District Manager to begin repairs or install additional casing. To obtain approval, you must also provide a PE certification showing that he or she reviewed and approved the proposed changes;

(2) Repair the casing or run another casing string; and

(3) Perform a pressure test after the repairs are made or additional casing is installed and report the results to the District Manager as specified in § 250.721.

§ 250.723 What additional safety measures must I take when I conduct operations on a platform that has producing wells or has other hydrocarbon flow?

You must take the following safety measures when you conduct operations with a rig unit or lift boat on or jacked-up over a platform with producing wells or that has other hydrocarbon flow:

(a) The movement of rig units and related equipment on and off a platform or from well to well on the same platform, including rigging up and rigging down, must be conducted in a safe manner;

(b) You must install an emergency shutdown station for the production system near the rig operator's console;

(c) You must shut-in all producible wells located in the affected wellbay below the surface and at the wellhead when:

(1) You move a rig unit or related equipment on and off a platform. This includes rigging up and rigging down activities within 500 feet of the affected platform;

(2) You move or skid a rig unit between wells on a platform; or

(3) A MODU or lift boat moves within 500 feet of a platform. You may resume production once the MODU or lift boat is in place, secured, and ready to begin operations.

(d) All wells in the same well-bay which are capable of producing hydrocarbons must be shut-in below the surface with a pump-through-type tubing plug and at the surface with a closed master valve prior to moving rig units and related equipment unless otherwise approved by the District Manager.

(1) A closed surface-controlled subsurface safety valve of the pump-through-type may be used in lieu of the pump-through-type tubing plug provided that the surface control has been locked out of operation.

(2) The well to which a rig unit or related equipment is to be moved must be equipped with a back-pressure valve prior to removing the tree and installing and testing the BOP system.

(3) The well from which a rig unit or related equipment is to be moved must be equipped with a back pressure valve prior to removing the BOP system and installing the production tree.

(e) Coiled tubing units, snubbing units, or wireline units may be moved onto and off of a platform without shutting in wells.

§ 250.724 What are the real-time monitoring requirements?

(a) When conducting well operations with a subsea BOP or surface BOP on a floating facility or when operating in an HPHT environment you must, within 3 years of publication of the final rule, gather and monitor real-time well data using an independent, automatic, and continuous monitoring system capable of recording, storing, and transmitting all aspects of:

(1) The BOP control system;

(2) The well's fluid handling systems on the rig; and

(3) The well's downhole conditions with the bottom hole assembly tools (if any tools are installed).

(b) You must immediately transmit these data as they are gathered to a

designated onshore location during operations where they must be monitored by qualified personnel who must be in continuous contact with rig personnel during operations. After operations, you must preserve and store this data at a designated location for recordkeeping purposes as required in §§ 250.740 and 250.741. You must designate the location where the data will be stored and monitored during operations in your APD or APM. The location and the data must be made accessible to BSEE upon request.

(c) If you lose any real-time monitoring capability during operations covered by this section, you must immediately notify the District Manager. The District Manager may require other measures until real-time monitoring capability is restored.

Blowout Preventer (BOP) System Requirements

§ 250.730 What are the general requirements for BOP systems and system components?

(a) You must design, install, maintain, inspect, test, and use the BOP system and system components to ensure well control. The working-pressure rating of each BOP component must exceed MASP as defined for the operation. For a subsea BOP, the MASP must be taken at the mudline. The BOP system includes the BOP stack, control system, and any other associated system(s) and equipment. The BOP system and individual components must be able to perform their expected functions and be compatible with each other. Each ram (excluding casing shear/supershear) must be capable of closing and sealing the wellbore at all times, including under flowing conditions as defined for the operation and specific well conditions, without losing ram closure time and sealing integrity due to the corrosiveness, volume, and abrasiveness of any fluids in the wellbore that you may encounter. Your BOP system must meet the following requirements:

(1) The BOP requirements of API Standard 53 (incorporated by reference in § 250.198) and the requirements of §§ 250.733 through 250.739. If there is a conflict between API Standard 53 and the requirements of this subpart, you

must follow the requirements of this subpart.

(2) The following industry standards (all incorporated by reference in § 250.198):

- (i) ANSI/API Spec. 6A;
- (ii) ANSI/API Spec. 16A;
- (iii) ANSI/API Spec. 16C;
- (iv) API Spec. 16D; and
- (v) ANSI/API Spec. 17D.

(3) For surface and subsea BOPs, the pipe and variable bore rams installed in the BOP stack must be capable of effectively closing and sealing on the tubular body of any drill pipe, workstring, and tubing in the hole under MASP, as defined for the operation, with the proposed regulator settings of the BOP control system.

(4) The current set of approved schematic drawings must be available on the rig and at an onshore location. If you make any modifications to the BOP or control system that will change your BSEE-approved schematic drawings, you must suspend operations until you obtain approval from the District Manager.

(b) You must design, fabricate, maintain, and repair your BOP system according to the requirements contained in this subpart, OEM recommendations unless otherwise directed by BSEE, and recognized engineering practices. The training and qualification of repair and maintenance personnel must meet or exceed any OEM training recommendations unless otherwise directed by BSEE.

(c) You must follow the failure reporting procedures contained in API Standard 53, ANSI/API Spec. 6A, and ANSI/API Spec 16A, and:

(1) You must provide a written report of equipment failure to the manufacturer of such equipment within 30 days after the discovery and identification of the failure.

(2) You must ensure that an investigation and a failure analysis are initiated within 60 days of the failure to determine the cause of the failure. If the investigation and analysis are performed by an entity other than the manufacturer, you must ensure that the manufacturer receives a copy of the analysis.

(3) If the equipment manufacturer notifies you that it has changed the

design of the equipment that failed, or if you have changed operating or repair procedures as a result of a failure, then you must, within 30 days of such notice or change, report the design change or modified procedures in writing to the Chief, Office of Offshore Regulatory Programs; Bureau of Safety and Environmental Enforcement; HE 3314; 45600 Woodland Road, Sterling, Virginia 20166.

(d) If you plan to use a BOP stack manufactured after the effective date of this regulation, you must use one manufactured pursuant to an API Spec. Q1 (as incorporated by reference in § 250.198) quality management system. Such quality management system must be certified by an entity that meets the requirements of ISO 17011.

(1) The BSEE may consider accepting equipment manufactured under quality assurance programs other than API Spec. Q1, provided you submit a request to BSEE containing relevant information about the alternative program and receive BSEE approval under § 250.141.

(2) You must submit this request to the Chief, Office of Offshore Regulatory Programs; Bureau of Safety and Environmental Enforcement; HE 3314; 45600 Woodland Road, Sterling, Virginia 20166.

§ 250.731 What information must I submit for BOP systems and system components?

For any operation that requires the use of a BOP, you must include the information listed in this section with your applicable APD, APM, or other submittal. You are required to submit this information only once for each well, unless the information changes from what you provided in an earlier approved submission or you have moved off location from the well. After you have submitted this information for a particular well, subsequent APMs or other submittals for the well should reference the approved submittal containing the information required by this section and confirm that the information remains accurate and that you have not moved off location from that well. If the information changes or you have moved off location from the well, you must submit updated information in your next submission.

You must submit:	Including:
(a) A complete description of the BOP system and system components,	(1) Pressure ratings of BOP equipment; (2) Proposed BOP test pressures (for subsea BOPs, include both surface and corresponding subsea pressures); (3) Rated capacities for liquid and gas for the fluid-gas separator system; (4) Control fluid volumes needed to close, seal, and open each component;

You must submit:	Including:
(b) Schematic drawings,	(5) Control system pressure and regulator settings needed to achieve an effective seal of each ram BOP under MASP as defined for the operation; (6) Number and volume of accumulator bottles and bottle banks (for subsea BOP, include both surface and subsea bottles); (7) Accumulator pre-charge calculations (for subsea BOP, include both surface and subsea calculations); (8) All locking devices; and (9) Control fluid volume calculations for the accumulator system (for a subsea BOP system, include both the surface and subsea volumes).
(c) Certification by a BSEE-approved verification organization,	(1) The inside diameter of the BOP stack, (2) Number and type of preventers (including blade type for shear ram(s)), (3) All locking devices, (4) Size range for variable bore ram(s), (5) Size of fixed ram(s), (6) All control systems with all alarms and set points labeled, including pods, (7) Location and size of choke and kill lines (and gas bleed line(s) for subsea BOP), (8) Associated valves of the BOP system, (9) Control station locations, and (10) A cross-section of the riser for a subsea BOP system showing number, size, and labeling of all control, supply, choke, and kill lines down to the BOP.
(d) Additional certification by a BSEE-approved verification organization, if you use a subsea BOP, a BOP in an HPHT environment as defined in §250.807, or a surface BOP on a floating facility,	Verification that: (1) Test data clearly demonstrates the shear ram(s) will shear the drill pipe at the water depth as required in §250.732; (2) The BOP was designed, tested, and maintained to perform at the most extreme anticipated conditions; and (3) The accumulator system has sufficient fluid to function the BOP system without assistance from the charging system.
(e) If you are using a subsea BOP, descriptions of autoshear, deadman, and emergency disconnect sequence (EDS) systems,	Verification that: (1) The BOP stack is designed for the specific equipment on the rig and for the specific well design; (2) The BOP stack has not been compromised or damaged from previous service; and (3) The BOP stack will operate in the conditions in which it will be used.
(f) Certification stating that the Mechanical Integrity Assessment Report required in §250.732(d) has been submitted within the past 12 months for a subsea BOP, a BOP being used in an HPHT environment as defined in §250.807, or a surface BOP on a floating facility.	A listing of the functions with their sequences and timing.

§ 250.732 What are the BSEE-approved verification organization requirements for BOP systems and system components?

(a) The BSEE will maintain a list of BSEE-approved verification organizations that you may use. For an organization to become a BSEE approved verification organization, it must submit the following information to the Chief, Office of Regulatory Programs: Bureau of Safety and Environmental Enforcement: 45600 Woodland Road, Sterling, Virginia, 20166, for BSEE review and approval:

- (1) Previous experience in verification or in the design, fabrication, installation, repair, or major modification of BOPs and related systems and equipment;
- (2) Technical capabilities;
- (3) Size and type of organization;
- (4) In-house availability of, or access to, appropriate technology. This should include computer programs, hardware, and testing materials and equipment;
- (5) Ability to perform the verification functions for projects considering current commitments;

- (6) Previous experience with BSEE requirements and procedures; and
- (7) Any additional information that may be relevant to BSEE's review.

(b) Prior to beginning any operation requiring the use of any BOP, you must submit verification by a BSEE-approved verification organization and supporting documentation as required by this paragraph to the appropriate District Manager and Regional Supervisor.

You must submit verification and documentation related to:	That:
(1) Shear testing,	(i) Demonstrates that the BOP will shear the drill pipe and any electric-, wire-, and slick-line to be used in the well;

You must submit verification and documentation related to:	That:
<p>(2) Pressure integrity testing, and</p> <p>(3) Calculations.</p>	<p>(ii) Demonstrates the use of test protocols and analysis that represent recognized engineering practices for ensuring the repeatability and reproducibility of the tests, and that the testing was performed by a facility that meets generally accepted quality assurance standards;</p> <p>(iii) Provides a reasonable representation of field applications, taking into consideration the physical and mechanical properties of the drill pipe;</p> <p>(iv) Ensures testing was performed on the outermost edges of the shearing blades of the positioning mechanism as required in §250.734(a)(16);</p> <p>(v) Demonstrates the shearing capacity of the BOP equipment to the physical and mechanical properties of the drill pipe; and</p> <p>(vi) Includes all testing results.</p> <p>(i) Shows that testing is conducted immediately after the shearing tests;</p> <p>(ii) Demonstrates that the equipment will seal at the rated working pressure of the BOP for 30 minutes; and</p> <p>(iii) Includes all test results.</p> <p>Include shearing and sealing pressures for all pipe to be used in the well including corrections for MASP.</p>

(c) For wells in an HPHT environment, as defined by § 250.807(b), you must submit verification by a BSEE-approved verification organization that the verification organization conducted a comprehensive review of the BOP system and related equipment you propose to use. You must provide the BSEE-approved verification organization access to any facility associated with the BOP system or related equipment during the review process. You must submit the verifications required by this paragraph to the appropriate District Manager and Regional Supervisor before you begin any operations in an HPHT environment with the proposed equipment.

You must submit:	Including:
<p>(1) Verification that the verification organization conducted a detailed review of the design package to ensure that all critical components and systems meet recognized engineering practices,</p> <p>(2) Verification that the designs of individual components and the overall system have been proven in a testing process that demonstrates the performance and reliability of the equipment in a manner that is repeatable and reproducible,</p> <p>(3) Verification that the BOP equipment will perform as designed in the temperature, pressure, and environment that will be encountered, and</p> <p>(4) Verification that the fabrication, manufacture, and assembly of individual components and the overall system uses recognized engineering practices and quality control and assurance mechanisms.</p>	<p>(i) Identification of all reasonable potential modes of failure, and</p> <p>(ii) Evaluation of the design verification tests. The design verification tests must assess the equipment for the identified potential modes of failure.</p> <p>For the quality control and assurance mechanisms, complete material and quality controls over all contractors, subcontractors, distributors, and suppliers at every stage in the fabrication, manufacture, and assembly process.</p>

(d) Once every 12 months, you must submit a Mechanical Integrity Assessment Report for a subsea BOP, a BOP being used in an HPHT environment as defined in § 250.807, or a surface BOP on a floating facility. This report must be completed by a BSEE-approved verification organization. You must submit this report to the Chief, Office of Regulatory Programs: Bureau of Safety and Environmental Enforcement: 45600 Woodland Road, Sterling, Virginia, 20166. This report must include:

(1) A determination that the BOP stack and system meets or exceeds all BSEE regulatory requirements, industry standards incorporated into this subpart, and recognized engineering practices.

(2) Verification that complete documentation of the equipment's

service life exists that demonstrates that the BOP stack has not been compromised or damaged during previous service.

(3) A description of all inspection, repair and maintenance records reviewed, and verification that all repairs, replacement parts, and maintenance meet regulatory requirements, recognized engineering practices, and OEM specifications.

(4) A description of records reviewed related to any modifications to the equipment and verification that any such changes do not adversely affect the equipment's capability to perform as designed or invalidate test results.

(5) A description of the Safety and Environmental Management Systems (SEMS) plans reviewed related to assurance of quality and mechanical integrity of critical equipment and

verification that the plans are comprehensive and fully implemented.

(6) Verification that the qualification and training of inspection, repair, and maintenance personnel for the BOP systems meet recognized engineering practices and OEM requirements.

(7) A description of all records reviewed covering OEM safety alerts, all failure reports, and verification that any design or maintenance issues have been completely identified and corrected.

(8) A comprehensive assessment of the overall system and verification that all components (including mechanical, hydraulic, electrical, and software) are compatible.

(9) Verification that documentation exists concerning the traceability of the fabrication, repair, and maintenance of all critical components.

(10) Verification of use of a formal maintenance tracking system to ensure that corrective maintenance and scheduled maintenance is implemented in a timely manner.

(11) Identification of gaps or deficiencies related to inspection and maintenance procedures and documentation, documentation of any deferred maintenance, and verification of the completion of corrective action plans.

(12) Verification that any inspection, maintenance, or repair work meets the manufacturer's design and material specifications.

(13) Verification of written procedures for operating the BOP stack and LMRP (including proper techniques to prevent accidental disconnection of these components) and minimum knowledge requirements for personnel authorized to operate and maintain BOP components.

(14) Recommendations, if any, for how to improve the fabrication, installation, operation, maintenance, inspection, and repair of the equipment.

(e) You must make all documentation that supports the requirements of this section available to BSEE upon request.

§ 250.733 What are the requirements for a surface BOP stack?

(a) When you drill or conduct operations with a surface BOP stack, you must install the BOP system before drilling or conducting operations to deepen the well below the surface casing and after the well is deepened below the surface casing point. The surface BOP stack must include at least four remote-controlled, hydraulically operated BOPs, consisting of one annular BOP, one BOP equipped with blind-shear rams, and two BOPs equipped with pipe rams.

(1) The blind-shear rams must be capable of shearing at any point along the tubular body of any drill pipe (excluding tool joints, bottom-hole tools, and bottom hole assemblies that include heavy-weight pipe or collars),

workstring, tubing, and any electric-, wire-, and slick-line that is in the hole and sealing the wellbore after shearing. If your blind-shear rams are unable to cut any electric-, wire-, or slick-line under MASP as defined for the operation and seal the wellbore, you must use an alternative cutting device capable of shearing the lines before closing the BOP. This device must be available on the rig floor during operations that require their use.

(2) The two BOPs equipped with pipe rams must be capable of closing and sealing on the tubular body of any drill pipe, workstring, and tubing under MASP, as defined for the operation, excluding the bottom hole assembly that includes heavy-weight pipe or collars, and bottom-hole tools.

(b) If you plan to use a surface BOP on a floating production facility you must:

(1) Follow the BOP requirements in § 250.734(a)(1). You must comply with this requirement within 5 years from the publication of the final rule.

(2) Use a dual bore riser configuration, for risers installed after the effective date of this rule, before drilling or operating in any hole section or interval where hydrocarbons are, or may be, exposed to the well. The dual bore riser must meet the design requirements of API RP 2RD (as incorporated by reference in § 250.198) including appropriate design for the most extreme anticipated operating and environmental conditions.

(i) For a dual bore riser configuration, the annulus between the risers must be monitored during operations. You must describe in your APD or APM your annulus monitoring plan and how you will secure the well in the event a leak is detected.

(ii) The inner riser for a dual riser configuration is subject to the requirements for testing the casing or liner at § 250.721.

(c) You must install separate side outlets on the BOP stack for the kill and

choke lines. If your stack does not have side outlets, you must install a drilling spool with side outlets. The outlet valves must hold pressure from both directions.

(d) You must install a choke and a kill line on the BOP stack. You must equip each line with two full-bore, full-opening valves, one of which must be remote-controlled. On the kill line, you may install a check valve and a manual valve instead of the remote-controlled valve. To use this configuration, both manual valves must be readily accessible and you must install the check valve between the manual valves and the pump.

(e) You must install hydraulically operated locks.

(f) For a surface BOP used in HPHT environments, if operations are suspended to make repairs to any part of the BOP system, you must stop operations at a safe downhole location. Before resuming operations you must:

(1) Submit a revised APD or APM including documentation of the repairs and a certification from a BSEE-approved verification organization stating that they reviewed the repairs, and that the BOP is fit for service; and

(2) Receive approval from the District Manager.

§ 250.734 What are the requirements for a subsea BOP system?

(a) When you drill or conduct operations with a subsea BOP system, you must install the BOP system before drilling to deepen the well below the surface casing or conducting operations if the well is already deepened beyond the surface casing point. The District Manager may require you to install a subsea BOP system before drilling or conducting operations below the conductor casing if proposed casing setting depths or local geology indicate the need. The following table outlines your requirements.

When operating with a subsea BOP system, you must:	Additional requirements
(1) Have at least five remote-controlled, hydraulically operated BOPs;	You must have at least one annular BOP, two BOPs equipped with pipe rams, and two BOPs equipped with shear rams. For the two shear ram requirement, you must comply with this requirement within 5 years from the publication of the final rule. (i) Both BOPs equipped with pipe rams must be capable of closing and sealing on the tubular body of any drill pipe, workstring, and tubing under MASP, as defined for the operation, excluding the bottom hole assembly that includes heavy-weight pipe or collars, and bottom-hole tools.

When operating with a subsea BOP system, you must:	Additional requirements
<p>(2) Have an operable dual-pod control system to ensure proper and independent operation of the BOP system;</p> <p>(3) Have the accumulator capacity located subsea, to provide fast closure of the BOP components and to operate all critical functions in case of a loss of the power fluid connection to the surface;</p>	<p>(ii) Both shear rams must be capable of shearing at any point along the tubular body of any drill pipe (excluding tool joints, bottom-hole tools, and bottom hole assemblies that includes heavy-weight pipe or collars), workstring, tubing, appropriate area for the liner or casing landing string, shear sub on subsea test tree, and any electric-, wire-, slick-line in the hole under MASP. At least one shear ram must be capable of sealing the wellbore after shearing under MASP conditions as defined for the operation. Any non-sealing shear rams must be installed below the sealing shear rams.</p>
<p>(4) Have a subsea BOP stack equipped with remotely operated vehicle (ROV) intervention capability;</p>	<p>The accumulator capacity must:</p> <p>(i) Function each required shear ram, choke and kill side outlet valves, one pipe ram, and disconnect the LMRP.</p> <p>(ii) Have the capability of delivering fluid to each ROV function <i>i.e.</i>, flying leads.</p> <p>(iii) Have dedicated independent bottles for the autoshear, deadman, and EDS systems.</p>
<p>(5) Maintain an ROV and have a trained ROV crew on each rig unit on a continuous basis once BOP deployment has been initiated from the rig until recovered to the surface. The crew must examine all ROV related well-control equipment (both surface and subsea) to ensure that it is properly maintained and capable of shutting in the well during emergency operations;</p>	<p>(iv) Perform under MASP conditions as defined for the operation. The ROV must be capable of performing critical functions, including opening and closing each shear ram, choke and kill side outlet valves, all pipe rams, and LMRP disconnect under MASP conditions as defined for the operation. The ROV panels on the BOP and LMRP must be compliant with API RP 17H (as incorporated by reference in §250.198).</p>
<p>(6) Provide autoshear, deadman, and EDS systems for dynamically positioned rigs; provide autoshear and deadman systems for moored rigs;</p>	<p>The crew must be trained in the operation of the ROV. The training must include simulator training on stabbing into an ROV intervention panel on a subsea BOP stack. The ROV crew must be in communication with designated rig personnel who are knowledgeable about the BOP's capabilities.</p>
<p>(7) Demonstrate that any acoustic control system will function in the proposed environment and conditions;</p>	<p>(i) <i>Autoshear system</i> means a safety system that is designed to automatically shut-in the wellbore in the event of a disconnect of the LMRP. This is considered a <i>rapid discharge</i> system.</p> <p>(ii) <i>Deadman system</i> means a safety system that is designed to automatically shut-in the wellbore in the event of a simultaneous absence of hydraulic supply and signal transmission capacity in both subsea control pods. This is considered a <i>rapid discharge</i> system.</p> <p>(iii) <i>Emergency Disconnect Sequence (EDS) system</i> means a safety system that is designed to be manually activated to shut-in the wellbore and disconnect the LMRP in the event of an emergency situation. This is considered a <i>rapid discharge</i> system.</p> <p>(iv) Each emergency function must close at a minimum, two shear rams in sequence and be capable of performing their expected shearing and sealing action under MASP conditions as defined for the operation.</p>
<p>(8) Have operational or physical barrier(s) on BOP control panels to prevent accidental disconnect functions;</p>	<p>(v) Your sequencing must allow a sufficient delay for closing the upper shear ram after beginning closure of the lower shear ram to provide for maximum shearing efficiency.</p>
<p>(9) Clearly label all control panels for the subsea BOP system;</p> <p>(10) Develop and use a management system for operating the BOP system, including the prevention of accidental or unplanned disconnects of the system;</p>	<p>(vi) The control system for the emergency functions must be a fail-safe design, and the logic must provide for the subsequent step to be independent from the previous step having to be completed.</p> <p>If you choose to install an acoustic control system in addition to the autoshear, deadman, and EDS requirements, you must demonstrate to the District Manager, as part of the information submitted under §250.731, that the acoustic system will function in the proposed environment and conditions. The District Manager may require additional information.</p>
<p>(11) Establish minimum requirements for personnel authorized to operate critical BOP equipment;</p>	<p>Incorporate enable buttons on control panels to ensure two-handed operation for all critical functions.</p> <p>Label other BOP control panels such as hydraulic control panel.</p> <p>The management system must include written procedures for operating the BOP stack and LMRP (including proper techniques to prevent accidental disconnection of these components) and minimum knowledge requirements for personnel authorized to operate and maintain BOP components.</p> <p>Personnel must have:</p> <p>(i) Training in deepwater well-control theory and practice according to the requirements of Subpart O; and</p> <p>(ii) A comprehensive knowledge of BOP hardware and control systems.</p>

When operating with a subsea BOP system, you must:	Additional requirements
(12) Before removing the marine riser, displace the fluid in the riser with seawater;	You must maintain sufficient hydrostatic pressure or take other suitable precautions to compensate for the reduction in pressure and to maintain a safe and controlled well condition. You must follow the requirements of §250.720(b).
(13) Install the BOP stack in a well cellar when in an ice-scour area;	Your well cellar must be deep enough to ensure that the top of the stack is below the deepest probable ice-scour depth.
(14) Install at least two side outlets for a choke line and two side outlets for a kill line;	(i) If your stack does not have side outlets, you must install a drilling spool with side outlets. (ii) Each side outlet must have two full-bore, full-opening valves. (iii) The valves must hold pressure from both directions and must be remote-controlled. (iv) You must install a side outlet below each sealing shear ram. You may have a pipe ram or rams between the shearing ram and side outlet.
(15) Install a gas bleed line with two valves for the annular preventer; ..	(i) The valves must hold pressure from both directions; (ii) If you have dual annulars, where one annular is on the LMRP and one annular is on the lower BOP stack, you must install a gas bleed line on each annular.
(16) Use a BOP system that has the following mechanisms and capabilities:	(i) A mechanism coupled with each shear ram to position the entire pipe, including connection, completely within the area of the shearing blade and ensure shearing will occur any time the shear rams are activated. This mechanism cannot be another ram BOP or annular preventer, but you may use those during a planned shear. You must install this mechanism within 7 years from the publication of the final rule; (ii) The ability to mitigate compression of the pipe stub between the shearing rams when both shear rams are closed; (iii) If your control pods contain a subsea electronic module with batteries, a mechanism for personnel on the rig to monitor the state of charge of the subsea electronic module batteries in the BOP control pods.

(b) If operations are suspended to make repairs to any part of the subsea BOP system, you must stop operations at a safe downhole location. Before resuming operations you must:

(1) Submit a revised permit with a verification report from a BSEE-approved verification organization documenting the repairs and that the BOP is fit for service;

(2) Perform a new BOP test in accordance with §§ 250.737 and 250.738 upon relatch including deadman and ROV intervention; and

(3) Receive approval from the District Manager.

(c) If you plan to drill a new well with a subsea BOP, you do not need to submit with your APD the verifications required by this subpart for the open water drilling operation. Before drilling out the surface casing, you must submit for approval a revised APD, including the verifications required in this subpart.

§ 250.735 What associated systems and related equipment must all BOP systems include?

All BOP systems must include the following associated systems and related equipment:

(a) A surface accumulator system that provides 1.5 times the volume of fluid capacity necessary to close and hold closed all BOP components against MASP. The system must operate under

MASP conditions as defined for the operation. You must be able to operate all BOP functions without assistance from a charging system, with the blind shear ram being the last in the sequence, and still have enough pressure to shear pipe and seal the well with a minimum pressure of 200 psi remaining on the bottles above the precharge pressure. If you supply the accumulator regulators by rig air and do not have a secondary source of pneumatic supply, you must equip the regulators with manual overrides or other devices to ensure capability of hydraulic operations if rig air is lost;

(b) An automatic backup to the primary accumulator-charging system. The power source must be independent from the power source for the primary accumulator-charging system. The independent power source must possess sufficient capability to close and hold closed all BOP components under MASP conditions as defined for the operation;

(c) At least two full BOP control stations. One station must be on the rig floor. You must locate the other station in a readily accessible location away from the rig floor;

(d) The choke line(s) installed above the bottom well-control ram;

(e) The kill line that may be installed below the bottom ram, but it must be installed beneath at least one pipe ram;

(f) A fill-up line above the uppermost BOP;

(g) Hydraulically operated locking devices installed on the sealing ram-type BOPs; and

(h) A wellhead assembly with a rated working pressure that exceeds the maximum anticipated wellhead pressure.

§ 250.736 What are the requirements for choke manifolds, kelly valves, inside BOPs, and drill string safety valves?

(a) Your BOP system must include a choke manifold that is suitable for the anticipated surface pressures, anticipated methods of well control, the surrounding environment, and the corrosiveness, volume, and abrasiveness of drilling fluids and well fluids that you may encounter.

(b) Choke manifold components must have a rated working pressure at least as great as the rated working pressure of the ram BOPs. If your choke manifold has buffer tanks downstream of choke assemblies, you must install isolation valves on any bleed lines.

(c) Valves, pipes, flexible steel hoses, and other fittings upstream of the choke manifold must have a rated working pressure at least as great as the rated working pressure of the ram BOPs.

(d) You must use the following BOP equipment with a rated working pressure and temperature of at least as great as the working pressure and

temperature of the ram BOP during all operations:

- (1) A kelly valve installed below the swivel (upper kelly valve);
- (2) A kelly valve installed at the bottom of the kelly (lower kelly valve). You must be able to strip the lower kelly valve through the BOP stack;
- (3) If you operate with a mud motor and use drill pipe instead of a kelly, one kelly valve installed above, and one strippable kelly valve installed below, the joint of pipe used in place of a kelly;
- (4) On a top-drive system equipped with a remote-controlled valve, a strippable kelly-type valve installed below the remote-controlled valve;
- (5) An inside BOP in the open position located on the rig floor. You must be able to install an inside BOP for each size connection in the pipe;
- (6) A drill string safety valve in the open position located on the rig floor. You must have a drill-string safety valve available for each size connection in the pipe;
- (7) When running casing, a safety valve in the open position available on

the rig floor to fit the casing string being run in the hole;

- (8) All required manual and remote-controlled kelly valves, drill-string safety valves, and comparable-type valves (*i.e.*, kelly-type valve in a top-drive system) that are essentially full opening; and
- (9) A wrench to fit each manual valve. Each wrench must be readily accessible to the drilling crew.

§ 250.737 What are the BOP system testing requirements?

Your BOP system (this includes the choke manifold, kelly valves, inside BOP, and drill string safety valve) must meet the following testing requirements:

- (a) *Pressure test frequency.* You must pressure test your BOP system:
 - (1) When installed;
 - (2) Before 14 days have elapsed since your last BOP pressure test, or 30 days since your last blind-shear ram BOP pressure test. You must begin to test your BOP system before midnight on the 14th day (or 30th day for your blind-shear rams) following the conclusion of the previous test;

(3) Before drilling out each string of casing or a liner. You may omit this pressure test requirement if you did not remove the BOP stack to run the casing string or liner, the required BOP test pressures for the next section of the hole are not greater than the test pressures for the previous BOP test, and the time elapsed between tests has not exceeded 14 days (or 30 days for blind-shear rams). You must indicate in your APD which casing strings and liners meet these criteria;

(4) The District Manager may require more frequent testing if conditions or your BOP performance warrants.

(b) *Pressure test procedures.* When you pressure test the BOP system, you must conduct a low-pressure test and a high-pressure test for each BOP component. You must begin each test by conducting the low-pressure test then transition to the high-pressure test. Each individual pressure test must hold pressure long enough to demonstrate the tested component(s) holds the required pressure. The table in this paragraph outlines your pressure test requirements.

You must conduct a . . .	According to the following procedures . . .
(1) Low-pressure test (2) High-pressure test for blind-shear ram-type BOPs, ram-type BOPs, the choke manifold, outside of all choke and kill side outlet valves (and annular gas bleed valves for subsea BOP), inside of all choke and kill side outlet valves below uppermost ram, and other BOP components. (3) High-pressure test for annular-type BOPs, inside of choke or kill valves (and annular gas bleed valves for subsea BOP) above the uppermost ram BOP.	All low-pressure tests must be between 250 and 350 psi. Any initial pressure above 350 psi must be bled back to a pressure between 250 and 350 psi before starting the test. If the initial pressure exceeds 500 psi, you must bleed back to zero and reinitiate the test. The high-pressure test must equal the rated working pressure of the equipment or be 500 psi greater than your calculated MASP, as defined for the operation for the applicable section of hole. Before you may test BOP equipment to the MASP plus 500 psi, the District Manager must have approved those test pressures in your APD. The high pressure test must equal 70 percent of the rated working pressure of the equipment or be 500 psi greater than your calculated MASP, as defined for the operation for the applicable section of hole. Before you may test BOP equipment to the MASP plus 500 psi, the District Manager must have approved those test pressures in your APD.

(c) *Duration of pressure test.* Each test must hold the required pressure for 5 minutes, which must be recorded on a chart not exceeding 4 hours. However, for surface BOP systems and surface equipment of a subsea BOP system, a 3-minute test duration is acceptable if

recorded on a chart not exceeding 4 hours, or on a digital recorder. The recorded test pressures must be within the middle half of the chart range, *i.e.*, cannot be within the lower or upper one-fourth of the chart range. If the equipment does not hold the required

pressure during a test, you must correct the problem and retest the affected component(s).

(d) *Additional test requirements.* You must meet the following additional BOP testing requirements:

You must . . .	Additional requirements . . .
(1) Follow the testing requirements of API Standard 53 (as incorporated in § 250.198). (2) Use water to test a surface BOP system. (3) Stump test a subsea BOP system before installation.	If there is a conflict between API Standard 53 testing requirements and this section, you must follow the requirements of this section. (i) You must submit test procedures with your APD or APM for District Manager approval. (ii) Contact the District Manager at least 72 hours prior to beginning the test to allow BSEE representative(s) to witness testing. If BSEE representative(s) are unable to witness testing, you must provide the test results to the appropriate District Manager within 72 hours after completion of the tests. (i) You must use water to conduct this test. You may use drilling fluids to conduct subsequent tests of a subsea BOP system.

You must . . .	Additional requirements . . .
(4) Perform an initial subsea BOP test.	<ul style="list-style-type: none"> (ii) You must submit test procedures with your APD or APM for District Manager approval. (iii) Contact the District Manager at least 72 hours prior to beginning the stump test to allow BSEE representative(s) to witness testing. If BSEE representative(s) are unable to witness testing, you must provide the test results to the appropriate District Manager within 72 hours after completion of the tests. (iv) You must test and verify closure of all ROV intervention functions on your subsea BOP stack during the stump test. (v) You must follow (b) and (c) of this section.
(5) Alternate tests between control stations and pods.	<ul style="list-style-type: none"> (i) You must perform the initial subsea BOP test on the seafloor within 30 days of the stump test. (ii) You must submit test procedures with your APD or APM for District Manager approval. (iii) You must pressure test well-control rams according to (b) and (c) of this section. (iv) You must notify the District Manager at least 72 hours prior to beginning the initial subsea test for the BOP system to allow BSEE representative(s) to witness testing. (v) You must test and verify closure of at least one set of rams during the initial subsea test through a ROV hot stab. You must pressure test the selected rams according to (b) and (c) of this section. <p>(i) For two complete BOP control stations:</p> <ul style="list-style-type: none"> (A) Designate a primary and secondary station, and both stations must be function-tested weekly, (B) The control station used for the pressure test must be alternated between pressure tests, and (C) For a subsea BOP, the pods must be rotated between control stations during weekly function testing, and the pod used for pressure testing must be alternated between pressure tests. <p>(ii) Any additional control stations must be function tested every 14 days.</p>
<ul style="list-style-type: none"> (6) Pressure test variable bore-pipe ram BOPs against the largest and smallest sizes of pipe in use, excluding the bottom hole assembly that includes heavy-weight pipe or collars and bottom-hole tools. (7) Pressure test annular type BOPs against the smallest pipe in use. (8) Pressure test affected BOP components following the disconnection or repair of any well-pressure containment seal in the wellhead or BOP stack assembly. (9) Function test annular and pipe/variable bore ram BOPs every 7 days between pressure tests. (10) Function test blind-shear ram BOPs every 14 days. (11) Actuate safety valves assembled with proper casing connections before running casing. (12) Test and verify closure capability of all ROV intervention functions on your subsea BOP. 	<ul style="list-style-type: none"> (i) Each ROV must be fully compatible with the BOP stack ROV intervention panels. (ii) You must submit test procedures, including how you will test each ROV intervention function, with your APD or APM for District Manager approval. (iii) You must document all your test results and make them available to BSEE upon request. <p>(i) You must submit test procedures with your APD or APM for District Manager approval. The procedures for these function tests must include the schematics of the actual controls and circuitry of the system that will be used during an actual autoshear or deadman event.</p> <p>(ii) The procedures must also include the actions and sequence of events that take place on the approved schematics of the BOP control system and describe specifically how the ROV will be utilized during this operation.</p> <p>(iii) When you conduct the initial deadman system test on the seafloor, you must ensure the well is secure and, if hydrocarbons have been present, appropriate barriers are in place to isolate hydrocarbons from the wellhead. You must also have an ROV on bottom during the test.</p> <p>(iv) The testing of the deadman system on the seafloor must indicate the discharge pressure of the subsea accumulator system throughout the test.</p> <p>(v) For the function test of the deadman system during the initial test on the seafloor, you must have the ability to quickly disconnect the LMRP should the rig experience a loss of station-keeping event. You must include your quick-disconnect procedures with your deadman test procedures.</p>
(13) Function test autoshear, deadman, and EDS systems separately on your subsea BOP stack during the stump test. The District Manager may require additional testing of the emergency systems. You must also test the deadman system and verify closure of the shearing rams during the initial test on the seafloor.	

You must . . .	Additional requirements . . .
	(vi) You must pressure test the blind-shear ram(s) according to (b) and (c) of this section. (vii) If a casing shear ram is installed, you must describe how you will verify closure of the ram. (viii) You must document all your test results and make them available to BSEE upon request.

(e) Prior to conducting any shear ram tests in which you will shear pipe, you must notify the BSEE District Manager at least 72 hours in advance, to ensure that a representative of BSEE will have access to the location to witness any testing.

§ 250.738 What must I do in certain situations involving BOP equipment or systems?

The table in this section describes actions that you must take when certain situations occur with BOP systems.

If you encounter the following situation:	Then you must . . .
(a) BOP equipment does not hold the required pressure during a test;	Correct the problem and retest the affected equipment. You must report any problems or irregularities, including any leaks, to the District Manager and on the daily report as required in §250.746.
(b) Need to repair, replace, or reconfigure a surface or subsea BOP system;	(1) First place the well in a safe, controlled condition as approved by the District Manager (e.g., before drilling out a casing shoe or after setting a cement plug, bridge plug, or a packer). (2) Any repair or replacement parts must be manufactured under a quality assurance program and must meet or exceed the performance of the original part produced by the OEM. (3) You must receive approval from the District Manager prior to resuming operations with the new, repaired, or reconfigured BOP. You must submit a report from a BSEE-approved verification organization to the District Manager certifying that the BOP is fit for service.
(c) Need to postpone a BOP test due to well-control problems such as lost circulation, formation fluid influx, or stuck pipe;.	Record the reason for postponing the test in the daily report and conduct the required BOP test on the first trip out of the hole.
(d) BOP control station or pod that does not function properly;	Suspend operations until that station or pod is operable. You must report any problems or irregularities, including any leaks, to the District Manager.
(e) Plan to operate with a tapered string;	Install two or more sets of conventional or variable-bore pipe rams in the BOP stack to provide for the following: two sets of rams must be capable of sealing around the larger-size drill string and two sets of pipe rams must be capable of sealing around the smaller size pipe, excluding the bottom hole assembly that includes heavy weight pipe or collars and bottom-hole tools.
(f) Plan to install casing rams or casing shear rams in a surface BOP stack;.	Test the ram bonnets before running casing to the rated working pressure or MASP plus 500 psi. The BOP must also provide for sealing the well after casing is sheared. If this installation was not included in your approved permit, and changes the BOP configuration approved in the APD or APM, you must notify and receive approval from the District Manager.
(g) Plan to use an annular BOP with a rated working pressure less than the anticipated surface pressure;.	Demonstrate that your well-control procedures or the anticipated well conditions will not place demands above its rated working pressure and obtain approval from the District Manager.
(h) Plan to use a subsea BOP system in an ice-scour area;	Install the BOP stack in a well cellar. The well cellar must be deep enough to ensure that the top of the stack is below the deepest probable ice-scour depth.
(i) You activate any shear ram and pipe or casing is sheared;	Retrieve, physically inspect, and conduct a full pressure test of the BOP stack after the situation is fully controlled. You must submit to the District Manager a report from a BSEE-approved verification organization certifying that the BOP is fit to return to service.
(j) Need to remove the BOP stack;	Have a minimum of two barriers in place prior to BOP removal. You must obtain approval from the District Manager of the two barriers prior to removal and the District Manager may require additional barriers.
(k) In the event of a deadman or autoshear activation, if there is a possibility of the blind-shear ram opening immediately upon re-establishing power to the BOP stack;.	Place the blind-shear ram opening function in the block position prior to re-establishing power to the stack. Contact the District Manager and receive approval of procedures for re-establishing power and functions prior to latching up the BOP stack or re-establishing power to the stack.
(l) If a test ram is to be used;	Conduct the initial BOP test after latching up using a test tool, and test the wellhead/BOP connection to the maximum pressure for the approved ram test for the well. All hydraulically operated BOP components must also be functioned during the well connection test.

If you encounter the following situation:	Then you must . . .
(m) Plan to utilize any other well-control equipment (e.g., but not limited to, subsea isolation device, subsea accumulator module, or gas handler) that is in addition to the equipment required in this subpart;	Contact the District Manager and request approval in your APD or APM. Your request must include a report from a BSEE-approved verification organization on the equipment's design and suitability for its intended use as well as any other information required by the District Manager. The District Manager may impose any conditions regarding the equipment's capabilities, operation, and testing.
(n) You have pipe/variable bore rams that have no current utility or well-control purposes;	Indicate in your APD or APM which pipe/variable bore rams meet these criteria and clearly label them on all BOP control panels. You do not need to function test or pressure test pipe/variable bore rams having no current utility, and that will not be used for well-control purposes, until such time as they are intended to be used during operations.
(o) You install redundant components for well control in your BOP system that are in addition to the required components of this subpart (e.g., pipe/variable bore rams, shear rams, annular preventers, gas bleed lines, and choke/kill side outlets or lines);	Comply with all testing, maintenance, and inspection requirements in this subpart that are applicable to those well-control components. If any redundant component fails a test, you must submit a report from a BSEE-approved verification organization that describes the failure, and confirms that there is no impact on the BOP that will make it unfit for well-control purposes. You must submit this report to the District Manager and receive approval before resuming operations. The District Manager may require additional information.
(p) Need to position the bottom hole assembly, including heavy-weight pipe or collars, and bottom-hole tools across the BOP for tripping or any other operations.	Ensure that the well has been stable for a minimum of 30 minutes prior to positioning the bottom hole assembly across the BOP. You must have, as part of your well-control plan required by § 250.710, procedures that enable the immediate removal of the bottom hole assembly from across the BOP in the event of a well control or emergency situation (for dynamically positioned rigs, your plan must also include steps for when the EDS must be activated) before MASP conditions are reached as defined for the operation.

§ 250.739 What are the BOP maintenance and inspection requirements?

(a) You must maintain and inspect your BOP system to ensure that the equipment functions as designed. The BOP maintenance and inspections must meet or exceed any OEM recommendations, recognized engineering practices, and industry standards incorporated by reference into the regulations of this subpart, including API Standard 53 (incorporated by reference in § 250.198). You must document how you met or exceeded the provisions of API Standard 53, maintain complete records to ensure the traceability of all critical components beginning at fabrication, and record the results of your BOP inspections and maintenance actions. You must make all records available to BSEE upon request.

(b) A complete breakdown and detailed physical inspection of the BOP and every associated system and component must be performed every 5 years. This complete breakdown and inspection may not be performed in phased intervals. A BSEE-approved verification organization is required to be present during the inspection and must compile a detailed report documenting the inspection, including

descriptions of any problems and how they were corrected. You must make this report available to BSEE upon request.

(c) You must visually inspect your surface BOP system on a daily basis. You must visually inspect your subsea BOP system, marine riser, and wellhead at least once every 3 days if weather and sea conditions permit. You may use cameras to inspect subsea equipment.

(d) You must ensure that all personnel maintaining, inspecting, or repairing BOPs, or critical components of the BOP system, meet the qualification and training criteria specified by the OEMs and recognized engineering practices.

(e) You must make all records available to BSEE upon request. You must ensure that the rig owner maintains your BOP maintenance, inspection, and repair records on the rig for 2 years from the date the records are created or for a longer period if directed by BSEE. You must maintain all design, maintenance, inspection, and repair records at an onshore location for the service life of the equipment.

Records and Reporting

§ 250.740 What records must I keep?

You must keep a daily report consisting of complete, legible, and

accurate records for each well. You must keep records onsite while well operations continue. After completion of operations, you must keep all operation and other well records for the time periods shown in § 250.741 at a location of your choice, except as required in § 250.746. The records must contain complete information on all of the following:

(a) Well operations, all testing conducted, and any real-time monitoring data;

(b) Descriptions of formations penetrated;

(c) Content and character of oil, gas, water, and other mineral deposits in each formation;

(d) Kind, weight, size, grade, and setting depth of casing;

(e) All well logs and surveys run in the wellbore;

(f) Any significant malfunction or problem; and

(g) All other information required by the District Manager.

§ 250.741 How long must I keep records?

You must keep records for the time periods shown in the following table.

You must keep records relating to . . .	Until . . .
(a) Drilling;	90 days after you complete operations.
(b) Casing and liner pressure tests, diverter tests, BOP tests, and real-time monitoring data;	2 years after the completion of operations.

You must keep records relating to . . .	Until . . .
(c) Completion of a well or of any workover activity that materially alters the completion configuration or affects a hydrocarbon-bearing zone.	You permanently plug and abandon the well or until you assign the lease and forward the records to the assignee.

§ 250.742 What well records am I required to submit?

You must submit to BSEE copies of logs or charts of electrical, radioactive, sonic, and other well logging operations; directional and vertical well surveys; velocity profiles and surveys; and analysis of cores. Each Region will provide specific instructions for submitting well logs and surveys.

§ 250.743 What are the well activity reporting requirements?

(a) For operations in the BSEE GOM OCS Region, you must submit Form BSEE-0133, Well Activity Report (WAR), to the District Manager on a weekly basis. The reporting week is defined as beginning on Sunday (12 a.m.) and ending on the following Saturday (11:59 p.m.). This reporting week corresponds to a week (Sunday through Saturday) on a standard calendar. Report any well operations that extend past the end of this weekly reporting period on the next weekly report. The reporting period for the weekly report is never longer than 7 days, but could be less than 7 days for the first reporting period and the last reporting period for a particular well operation. Submit each WAR and accompanying Form BSEE-0133S, Open Hole Data Report, to the BSEE GOM OCS Region no later than close of business on the Friday immediately after the closure of the reporting week. The District Manager may require more frequent submittal of the WAR on a case-by-case basis.

(b) For operations in the Pacific or Alaska OCS Regions, you must submit Form BSEE-0133, WAR, to the District Manager on a daily basis.

(c) The WAR must include a description of the operations conducted, any abnormal or significant events that affect the permitted operation each day within the report from the time you begin operations to the time you end operations, any verbal approval received, the well's as-built drawings, casing, fluid weights, shoe tests, test pressures at surface conditions, and any other information required by the District Manager. For casing cementing operations, indicate type of returns (*i.e.*, full, partial, or none). If partial or no returns are observed, you must indicate how you determined the top of cement. For each report, indicate the operation status for the well at the end of the

reporting period. On the final WAR, indicate the status of the well (completed, temporarily abandoned, permanently abandoned, or drilling suspended) and the date you finished such operations.

§ 250.744 What are the end of operation reporting requirements?

(a) Within 30 days after completing operations, except routine operations as defined in § 250.601, you must submit Form BSEE-0125, End of Operations Report (EOR), to the District Manager. The EOR must include a listing, with top and bottom depths, of all hydrocarbon zones and other zones of porosity encountered with any cored intervals; details on any drill-stem and formation tests conducted; documentation of successful negative pressure testing on wells that use a subsea BOP stack or wells with mudline suspension systems; and an updated schematic of the full wellbore configuration. The schematic must be clearly labeled and show all applicable top and bottom depths, locations and sizes of all casings, cut casing or stubs, casing perforations, casing rupture discs (indicate if burst or collapse and rating), cemented intervals, cement plugs, mechanical plugs, perforated zones, completion equipment, production and isolation packers, alternate completions, tubing, landing nipples, subsurface safety devices, and any other information required by the District Manager. The EOR must indicate the status of the well (completed, temporarily abandoned, permanently abandoned, or drilling suspended) and the date of the well status designation. The wells' status date is subject to the following:

- (1) For surface well operations and riserless subsea operations, the operations end date is subject to the discretion of the District Manager; and
- (2) For subsea well operations, the operations end date is considered to be the date the BOP is disconnected from the wellhead unless otherwise specified by the District Manager.

(b) You must submit public information copies of Form BSEE-0125 according to § 250.186(b).

§ 250.745 What other well records could I be required to submit?

The District Manager or Regional Supervisor may require you to submit

copies of any or all of the following well records:

- (a) Well records as specified in § 250.740;
- (b) Paleontological interpretations or reports identifying microscopic fossils by depth and/or washed samples of drill cuttings that you normally maintain for paleontological determinations. The Regional Supervisor may issue a Notice to Lessees that sets forth the manner, timeframe, and format for submitting this information;
- (c) Service company reports on cementing, perforating, acidizing, testing, or other similar services; or
- (d) Other reports and records of operations.

§ 250.746 What are the recordkeeping requirements for casing, liner, and BOP tests, and inspections of BOP systems and marine risers?

You must record the time, date, and results of all casing and liner pressure tests. You must also record pressure tests, actuations, and inspections of the BOP system, system components, and marine riser in the daily report described in § 250.740. In addition, you must:

- (a) Record test pressures on pressure charts;
- (b) Require your onsite lessee representative, designated rig or contractor representative, and pump operator to sign and date the pressure charts and daily reports as correct;
- (c) Document on the daily report the sequential order of BOP and auxiliary equipment testing and the pressure and duration of each test. For subsea BOP systems, you must also record the closing times for annular and ram BOPs. You may reference a BOP test plan if it is available at the facility;
- (d) Identify on the daily report the control station and pod used during the test (identifying the pod does not apply to coiled tubing and snubbing units);
- (e) Identify on the daily report any problems or irregularities observed during BOP system testing and record actions taken to remedy the problems or irregularities. Any leaks associated with the BOP or control system during testing are considered problems or irregularities and must be reported immediately to the District Manager, and documented in the WAR. If any problems or irregularities are observed during testing, operations must be suspended

until the District Manager determines that you may continue; and

(f) Retain all records, including pressure charts, daily reports, and referenced documents pertaining to tests, actuations, and inspections at the facility for the duration of the operation. After completion of the operation, you must retain all the records listed in this section for a period of 2 years at the facility. You must also retain the records at the lessee's field office nearest the facility or at another location available to BSEE. You must make all the records available to BSEE upon request.

■ 41. Revise § 250.1612 to read as follows:

§ 250.1612 Well-control drills.

Well-control drills must be conducted for each drilling crew in accordance with the requirements set forth in § 250.711 of this part or as approved by the District Manager.

- 42. Amend § 250.1703 by:
 - a. Revising paragraphs (b) and (e);
 - b. Redesignating paragraph (f) as paragraph (g); and
 - c. Adding a new paragraph (f).

The revisions and addition read as follows:

§ 250.1703 What are the general requirements for decommissioning?

- (b) Permanently plug all wells. All packers and bridge plugs must comply

with API Spec. 11D1 (as incorporated by reference in § 250.198);

* * * * *

(e) Clear the seafloor of all obstructions created by your lease and pipeline right-of-way operations;

(f) Follow all applicable requirements of subpart G; and

* * * * *

■ 43. Amend § 250.1704 by revising paragraph (g) and adding paragraph (h) to read as follows:

§ 250.1704 When must I submit decommissioning applications and reports?

* * * * *

Decommissioning applications and reports	When to submit	Instructions
(g) Form BSEE-0124, Application for Permit to Modify (APM). The submission of your APM must be accompanied by payment of the service fee listed in § 250.125;	(1) Before you temporarily abandon or permanently plug a well or zone, (2) Before you install a subsea protective device, (3) Before you remove any casing stub or mud line suspension equipment and any subsea protective device,	(i) Include information required under §§ 250.1712 and 250.1721. (ii) When using a BOP for abandonment operations, include information required under § 250.731. Refer to § 250.1722(a). Refer to § 250.1723.
(h) Form BSEE-0125, End of Operations Report (EOR);	(1) Within 30 days after you complete a protective device trawl test, (2) Within 30 days after you complete site clearance verification activities,	Include information required under § 250.1722(d). Include information required under § 250.1743(a).

§ 250.1705 [Removed and Reserved]

- 44. Remove and reserve § 250.1705.
- 45. Amend § 250.1706 by:
 - a. Revising the section heading;
 - b. Removing paragraphs (a) through (e); and
 - c. Redesignating paragraph (f) through (h) as paragraphs (a) through (c). The revision reads as follows:

§ 250.1706 Coiled tubing and snubbing operations.

* * * * *

§§ 250.1707 through 250.1709 [Removed and Reserved]

- 46. Remove and reserve §§ 250.1707 through 250.1709.
- 47. In § 250.1715, revise paragraph (a)(3)(iii)(B) to read as follows:

§ 250.1715 How must I permanently plug a well?

* * * * *

- (a) * * *
- (3) * * *
- (iii) * * *

(B) A casing bridge plug set 50 to 100 feet above the top of the perforated

interval and at least 50 feet of cement on top of the bridge plug;

* * * * *

§ 250.1717 [Removed and Reserved]

■ 48. Remove and reserve § 250.1717.

§ 250.1721 [Amended]

■ 49. Amend § 250.1721 by removing paragraph (g) and redesignating paragraph (h) as paragraph (g).

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Part IV

Department of Agriculture

Forest Service

36 CFR Parts 214, 261, 291

Paleontological Resources Preservation; Final Rule

DEPARTMENT OF AGRICULTURE**Forest Service****36 CFR Parts 214, 261, and 291**

RIN 0596-AC95

Paleontological Resources Preservation

AGENCY: Forest Service, USDA.

ACTION: Final rule.

SUMMARY: The U.S. Department of Agriculture (USDA or Department) is implementing regulations under the Omnibus Public Land Management Act of 2009 paleontological resources preservation subtitle (the Act). This rule provides for the preservation, management, and protection of paleontological resources on National Forest System lands (NFS), and insures that these resources are available for current and future generations to enjoy as part of America's national heritage. The rule addresses the management, collection, and curation of paleontological resources from NFS lands including management using scientific principles and expertise, collecting of resources with and without a permit, curation in an approved repository, maintaining confidentiality of specific locality data, and authorizing penalties for illegal collecting, sale, damaging, or otherwise altering or defacing paleontological resources.

DATES: This rule is effective May 18, 2015.

ADDRESSES: Information on this final rule may be obtained via written request addressed to USDA Forest Service, Michael Fracasso, M&GM, 740 Simms Street, Golden, CO 80401. The Forest Service Paleontological Resources Preservation procedures are set out in Title 36, Code of Federal Regulations, Part 291, and are available electronically via the World Wide Web/Internet at <http://www.gpoaccess.gov/cfr/index.html>.

FOR FURTHER INFORMATION CONTACT: Michael Fracasso, Forest Service, at 303-275-5130, or mfracasso@fs.fed.us.

Individuals who use telecommunications devices for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 between 8 a.m. and 8 p.m., Eastern Standard Time, Monday through Friday.

SUPPLEMENTARY INFORMATION:**Background**

The Paleontological Resources Preservation subtitle of the Omnibus Public Land Management Act, 16 U.S.C. 470aaa to aaa-11 (the Act), requires the

USDA and the U.S. Department of the Interior (DOI) to issue implementation regulations. In accordance with 16 U.S.C. 470aaa-1, these regulations would serve to manage and protect paleontological resources on National Forest System lands using scientific principles and expertise.

In FY 1999, the Interior Appropriations Subcommittee requested that the DOI, the Forest Service, and the Smithsonian Institution prepare a report on fossil resource management on public lands (see S. Rep. 105-227, at 60 (1998)). The request directed the agencies to analyze (1) the need for a unified Federal policy for the collection, storage, and preservation of fossils; (2) the need for standards that would maximize the availability of fossils for scientific study; and (3) the effectiveness of current methods for storing and preserving fossils collected from public lands. During the course of preparing the report, the agencies held a public meeting and gathered public input. The DOI report to Congress, "Assessment of Fossil Management of Federal and Indian Lands," was published in May 2000. The Paleontological Resources Preservation Act (PRPA) was introduced in the 107th Congress after the report was released. The PRPA was modeled after the Archaeological Resources Protection Act (ARPA) and emphasized the recommendations and guiding principles in the May 2000 report. The legislation was re-introduced in subsequent Congresses through the 111th Congress when it was combined with other natural resources legislation in an omnibus bill that became law on March 30, 2009 (the Act).

The Act requires that implementation be coordinated between the Secretaries of Agriculture and Interior (Secretaries) (16 U.S.C. 470aaa-1). Accordingly, the USDA and the DOI formed an interagency coordination team (ICT) in April 2009 to draft the proposed regulations. Members of the ICT included program leads for paleontology, archaeology, and regulatory specialists from the Forest Service, DOI Bureau of Land Management (BLM), National Park Service (NPS), Bureau of Reclamation (BOR), and Fish and Wildlife Service (FWS).

Response to Comments

The Paleontological Resources Preservation proposed rule was published in the **Federal Register** on May 23, 2013 (78 FR 30810), for a 60-day comment period, ending July 22, 2013. The Forest Service (Agency) received 177 responses, consisting of

letters, emails, and Web-based submittals. Of those, 131 were original responses, and the remaining 46 responses were organized response campaign (form) letters. Comments were received from the public (almost equally distributed among professional academic paleontologists, consultants, and students in higher education, and amateur collectors and individuals that did not identify an affiliation), paleontological repository institutions, and government and/or quasi-government agencies.

Public comment on the proposed rule addressed a range of topics, but focused on the following areas: Opposition to formal establishment of restrictions and/or operating conditions placed on casual collection of common invertebrate and plant paleontological resources, confidentiality of specific locations of paleontological resources, requirements associated with permits to collect paleontological resources, and operating standards for approved repository institutions housing paleontological resources from National Forest System lands. However, most provisions receiving critical comments are statutory requirements per the Act.

The following is a description of specific comments received on the proposed rule, responses to comments, and changes made in response to comments. Each comment received consideration in the development of the final rule. In the responses to comments that follow, the term "the Act" refers to the provisions for Paleontological Resources Preservation as stated in the Omnibus Public Land Act of 2009 (Pub. L. 111-011, Title VI, Subtitle D, Sec. 6310).

General Comments

The Department received the following comments not specifically tied to a particular section of the 2013 proposed rule.

Comment: Paleontological Resource Preservation regulations and the Act. Respondents expressed appreciation of the Forest Service's efforts in developing regulations to implement the Act. Respondents welcomed that the regulations provide clarification of stipulations in the Act, and expressed support for the intentions of the Act and their implementation in the regulations to provide for preservation, management, and protection of paleontological resources on National Forest System lands.

Response: The Act stipulates that the Secretary of Agriculture shall issue such regulations as are appropriate to carry out the provisions of the Act, as soon as practical after the date of enactment of

the Act. The Department agrees with the respondents that these regulations appropriately implement the Act by providing clarification of stipulations in the Act that ensure the preservation, management, and protection of paleontological resources on National Forest System (NFS) lands using scientific principles and expertise.

Comment: Regulations establish uniform and comprehensive rules for paleontological resource management. Respondents expressed the view that the regulations represent a needed advance in development of a comprehensive and uniform Agency-wide framework for the management and conservation of paleontological resources on National Forest System lands. One respondent expressed the view that the regulations lay the groundwork for greater roles in research and resource management by Agency paleontologists who are positioned to facilitate permitted research, with the goal of preservation and carefully managed use of paleontological resources. Such managed use would ensure that the public's property remains properly tracked, documented, overseen, and managed by professionals for the benefit of science. One respondent suggested that the regulations concerning permitting are a welcome improvement.

Response: The Department acknowledges that the Act and the regulations establish uniform, Agency-wide requirements for casual collecting, permitted collecting, and management of collections of paleontological resources from NFS lands for the first time. The Department encourages appropriate uses of paleontological resources, and expects that users of paleontological resources would be encouraged by the knowledge that uniform standards now exist for casual collecting, permitted collection, and management of collections of paleontological resources that will be applied consistently across the Agency. Prior to these regulations, the use of paleontological resources was largely subject to local administrative unit policy, and variability in policy between administrative units was a source of confusion and discouragement to some users.

Comment: Management of paleontological resources using scientific principles and expertise. Respondents expressed appreciation that the regulations recognize that paleontological resources are scientific resources, and that management decisions concerning such resources must be made using scientific principles and expertise.

Response: The Department acknowledges the appreciation expressed by respondents for its role in development of these regulations that establish a solid foundation for the management of paleontological resources on NFS lands using scientific principles and expertise. Such informed management is fundamental to the preservation of paleontological resources that comprise a nonrenewable and irreplaceable part of America's natural heritage. Paleontological resources on NFS lands are part of the public trust. The Act and these regulations would ensure that scientifically important specimens remain Federal property in the public realm, and that ownership of such resources is not transferred to any single individual wherein access to the resource and associated information may become unavailable to the public.

Comment: Regulations will deter loss of paleontological resources related to unrestricted collection. Respondents claim to have witnessed potential theft and/or vandalism of paleontological resources while in the field and significant damage to and destruction of paleontological resources caused by hand tools used during collection. Respondents expressed the view that they are appreciative of and support the Department's efforts in formulating these regulations to manage, preserve and safeguard the Nation's fossil resources and associated scientific information located on National Forest System lands.

Response: The Department appreciates the concern expressed by the respondents regarding observed destruction of paleontological resources on NFS lands. The Department expects that provisions for casual collecting and permitted collection of paleontological resources as established in the regulations would promote the appropriate use of such resources. Conversely, provisions for enforcement and penalties as established in the regulations would be expected to deter resource loss attributed to inappropriate collection, vandalism, and/or theft, as described by the respondents.

Comment: Additional Agency paleontologists are needed to administer regulations. One respondent expressed the view that additional Agency paleontologists are needed to administer the regulations, particularly with respect to paleontological resource permitting.

Response: The Forest Service employs paleontology specialists who will be involved in administration of the regulations. The issue of paleontology specialist staffing levels within the

Agency is beyond the scope of the regulations.

Comment: Regulations should not place restrictions on access or use of public lands. One respondent expressed the view that regulations should not place any restrictions on access or use of public lands.

Response: The Forest Service is accorded the authority to manage NFS lands against depredations and to make rules and regulations to regulate occupancy and use in accordance with the Organic Act of 1897. The Paleontological Resources Preservation Act of 2009 stipulates that the Secretary of Agriculture shall issue such regulations as are appropriate to carry out the provisions of the Act, as soon as practical after the date of enactment of the Act. Consequently, the development of these regulations is required by the Act. The Act and the regulations explicitly establish a legal basis for the activity of casual collecting of paleontological resources for the first time. The Act was enacted, and these regulations have been developed to preserve paleontological resources for current and future generations, because paleontological resources are nonrenewable and are an irreplaceable part of America's natural heritage. Paleontological resources on NFS lands are part of the public trust. The Act and these regulations would ensure, in part, that scientifically important specimens remain Federal property in the public realm, and that ownership of such resources is not transferred to any single individual wherein access to the resource and associated information may become unavailable to the public.

Comment: Proposed regulations concerning collection by amateurs are detrimental to the advancement of paleontological science. Several respondents expressed the view that regulation of collection of paleontological resources by amateurs on National Forest System lands is counter-productive to the advancement of paleontological science, and that such regulation does not recognize the important role of citizen-scientists in the advancement of paleontological science. Respondents suggested that paleontological discoveries made by amateurs on public lands have contributed greatly to the science of paleontology, and that noteworthy amateur contributions to paleontology have been formally recognized by the paleontological profession through vehicles such as the Strimple Award offered by the Paleontological Society. Respondents expressed the view that there are many more amateur collectors than professional research collectors,

and that many amateur collectors act as proxy collectors for researchers. Respondents suggested that amateurs will stop or reduce collecting in response to restrictions, resulting in a reduced flow of collection-based knowledge from amateurs to the scientific community. One respondent suggested that amateurs would continue to collect, but would keep their collecting sites and collections secret. Respondents suggested that many private amateur paleontological collections are ultimately donated to researchers, public institutions such as museums and schools, and individuals such as children with an interest in paleontology.

Response: The Department acknowledges the historical and continued roles that amateurs and/or citizen scientists have played in the advancement of paleontological science and the promotion of interest in paleontology in non-professional members of the public, including children and students in public education settings. The Department does not consider that these regulations would restrict collecting by amateurs, or such contributions as described above resulting from amateur collections. Rather, the Act and the regulations explicitly establish a legal basis for the activity of casual collecting of paleontological resources for the first time. Individuals who wish to collect paleontological resources in a manner beyond the scope of conditions established for casual collection are not precluded from doing so under the regulations; however, a permit would be required. Collection by amateurs acting as proxies for researchers would be considered research collection; such collection is not precluded under the regulations; however, a permit would be required. The Department expects that an informed and law-abiding collecting public would be aware of conditions for casual collecting as established in the regulation and would elect to legally collect by adhering to those conditions. Ethical amateur collectors practicing casual collection in accordance with established conditions, or permitted collection if such collection is beyond the scope of casual collection, would have no cause to keep collecting sites and collections secret from the Agency under the regulations.

Comment: Restrictions on collection of paleontological resources by amateurs are not necessary.

Respondents have expressed the view that the proposed regulations represent an infringement of the public's right to collect fossils. One respondent expressed the view that existing laws

and regulations are sufficient to protect paleontological resources without the imposition of new regulations. One respondent questioned from what harm are paleontological resources being protected by the proposed restrictions on collection, and another respondent suggested that such restrictions are not in the best interests of society because collection does not detrimentally affect public lands. Respondents have also suggested that the proposed restrictions on collection will not protect paleontological resources, because fossils that are not collected are eventually destroyed by natural processes of weathering and erosion and are ultimately lost to the public and to science. Respondents expressed the view that resource impacts resulting from amateur collection are negligible with respect to permitted activities such as logging, mining, and grazing. Respondents expressed the view that the regulations would encourage enforcement resulting from collection of specimens that would otherwise be lost to erosion, and that the regulations would criminalize commonplace collecting activities of amateurs and well-intentioned scientists.

Response: The Act stipulates that the Secretary of Agriculture shall issue such regulations as are appropriate to carry out the provisions of the Act, as soon as practical after the date of enactment of the Act. Consequently, the development of these regulations is required by the Act and must be consistent with the Act. The Act and the regulations explicitly establish a legal basis for the activity of casual collecting of paleontological resources for the first time. The Act was enacted and these regulations have been developed to preserve paleontological resources for current and future generations because paleontological resources are nonrenewable and are an irreplaceable part of America's natural heritage. Paleontological resources that are damaged or lost because of theft, vandalism, and/or inappropriate method of collection cannot be replaced or renewed and are lost forever. Paleontological resources on NFS lands are part of the public trust. The Act and these regulations would ensure that scientifically important specimens remain Federal property in the public realm, and that ownership of such resources is not transferred to any single individual wherein access to the resource and associated information may become unavailable to the public. The regulations do not prevent collection of paleontological resources that might otherwise be destroyed by

weathering or erosion, but they do establish conditions for such collection. Other surface disturbing activities as specified by the respondents require authorization from the Forest Service; casual collecting of common invertebrate and plant paleontological resources does not. Such authorizations generally require a formal assessment under the National Environmental Policy Act (NEPA) in which potential impacts associated with the activity are disclosed and potential mitigation of such impacts may be proposed. Because casual collecting does not require an authorization or other Agency decision, conditions are established for casual collection to ensure that surface disturbance related to such collection is negligible and does not exceed any threshold that would otherwise trigger the need for a NEPA assessment of the activity. The Department does not expect that the regulations would criminalize commonplace collecting activities. Rather, the Department expects that an informed and law-abiding collecting public would be aware of conditions for casual collecting as established in regulation and would elect to legally collect by adhering to those conditions. The Department could consider the intent and degree of non-compliance regarding regulated collecting activities in decisions regarding potential enforcement.

Comment: Restrictions on amateur collection are counter-productive to the goal of educating the public concerning paleontological resources. Respondents have expressed the view that amateur collection of fossils by children and students serves as a gateway to continued interest and education in paleontology and science in general, and that such interest results in the will to conserve such resources and to contribute private funds toward supporting paleontological research. Respondents have suggested that restrictions on amateur collection will serve as a disincentive for such collection and result in loss of interest and further pursuit of knowledge in paleontology and science. One respondent expressed the view that the scientific usefulness of common fossils is limited, but that their educational value for amateur collectors is high. Another respondent suggested that display of amateur collections in homes stimulates interest in paleontology among visitors. One respondent expressed the view that the development of paleontological expertise or education by nonprofessional, avocational advanced amateurs requires substantial collection

experience which cannot be obtained if unnecessary restrictions are imposed on collection by amateur, avocational, and/or paraprofessional paleontologists.

Response: The Department acknowledges the value of fossils in stimulating interest and continued education in science among children and students, and that paleontology is often viewed as a “gateway” to science education. The Act and the regulations explicitly establish a legal basis for the activity of casual collecting of paleontological resources for the first time. The Department expects that casual collectors, including children and students, would be encouraged by the knowledge that uniform standards now exist for casual collecting that will be applied consistently across the Agency. The respondents’ suggestion that conditions established for casual collecting would serve as a disincentive for collection and result in loss of interest and further pursuit of knowledge in paleontology and science are conjectural and not substantiated. Individuals who wish to develop paleontological expertise or education by collecting paleontological resources in a manner beyond the scope of conditions established for casual collection are not precluded from doing so under the regulations; however, a permit would be required.

Comment: Restrictions on amateur collection of paleontological resources will reduce their recreational value. Respondents expressed the view that amateur collection of fossils is an enjoyable family activity, and that restrictions on amateur collection will reduce the opportunity for the public to use and enjoy National Forest System lands with respect to fossil collecting. One respondent suggested that the scientific usefulness of common fossils is limited, but that their recreational value for amateur collectors is high.

Response: The Department acknowledges the recreational value placed on fossils by casual and amateur collectors. The Act and the regulations explicitly establish a legal basis for the activity of casual collecting of paleontological resources for the first time. The Department encourages appropriate uses of paleontological resources, and expects that recreational users of paleontological resources would be encouraged by the knowledge that uniform standards now exist for casual collecting that will be applied consistently across the Agency. The Department does not consider that conditions associated with casual collecting would reduce their recreational value. Individuals who wish to collect paleontological resources

for recreational purposes in a manner beyond the scope of conditions established for casual collection are not precluded from doing so under the regulations; however, a permit would be required.

Comment: Regulations do not distinguish among diverse types of paleontological resources. Respondents expressed the view that the regulations treat all paleontological resources the same, whereas common invertebrate and plant fossils merit fewer restrictions on collection than do vertebrate fossils and uncommon invertebrate and plant fossils. Respondents suggested that common invertebrate and plant fossils may exist in numbers of tens of thousands to hundreds of thousands at any given location, and that most such specimens would be lost to erosion if not collected. One respondent expressed the view that the apparent rarity of certain fossils often reflects the availability of access to collecting areas, rather than actual rarity of specimens.

Response: The Act and the regulations do distinguish among diverse types of paleontological resources, and such distinctions are reflected by establishing casual collecting as an activity that is limited to common invertebrate and plant paleontological resources. Collection of other paleontological resources, and collection of common invertebrate and plant fossils for research purposes, requires a permit which may be considered a higher level of restriction. Collection of common invertebrate and plant fossils outside the scope of conditions established for casual collecting is not precluded under the regulations; however, a permit would be required.

Comment: Regulations should foster collection of paleontological resources. One respondent expressed the view that the regulations be written to foster the collection of paleontological resources by all members of the public and that paleontological resources be shared by placing them into public and private institutions for purposes of publication and preservation.

Response: The Act and the regulations as written establish uniform, Agency-wide requirements for casual collecting and permitted collecting for the first time. The Department encourages appropriate uses of paleontological resources by all members of the public, and expects that users of paleontological resources would be encouraged by the knowledge that uniform standards to be applied consistently across the Agency now exist for casual collecting and permitted collection of paleontological resources. The regulations establish that paleontological resources collected

under a permit must be deposited in an approved repository where they will be preserved for the public and made available for scientific research and public education.

Comment: Roles of permittee and repository not differentiated. One respondent expressed the view that the regulations misunderstand the difference in roles of the permittee and repository.

Response: The regulations do not misunderstand the difference in roles of a permit holder and a repository, although such distinction may not have been expressed clearly in certain areas of the proposed regulations. Respondents identified several specific areas in the proposed regulations where such differences were unclear, and the Department has modified the language in those areas, as appropriate, in these final regulations to provide clarity regarding the respective roles of a permit holder and a repository.

Comment: New funding sources for paleontological resource studies. One respondent suggested that the effort expended in drafting these regulations be leveraged to develop new funding sources for the scientific study of paleontological resources on National Forest System lands.

Response: The Department agrees that development of new funding sources for scientific study of paleontological resources on National Forest System lands would be beneficial. However, it is beyond the scope of these regulations to address funding of research on paleontological resources.

Comment: Clarity of language and intent in regulations. One respondent expressed the view that it is imperative that clarity of regulatory language reflect clarity in intent of the regulations.

Response: The Department agrees that clarity of regulatory language should reflect clarity of intent of the regulations. The Department has strived to provide such clarity in these final regulations, reflecting consideration of public comments on the proposed regulations that suggested areas that would benefit from additional discussion.

Comment: Request for consultation with rule writers. Two respondents requested an opportunity to meet with rule writers to discuss their concerns prior to drafting of the final rule.

Response: The procedure followed by the Department in soliciting public comment following **Federal Register** publication of the proposed regulations is in accordance with the requirements established in the Uniform Procedure Act. The comments received during the designated 60-day public comment

period were appropriately considered by the Department during development of the final regulations. The Department elected not to consult with particular individuals and/or organizations outside of the formal public comment period in order to avoid the appearance of providing privileged access to and influence on the rule-making process by certain interested parties and not others.

Comment: Availability of fossils for scientific study would diminish under regulations. One respondent expressed the view that the regulations do not provide standards to maximize the availability of fossils for scientific study, but rather the availability of fossils for scientific study would be diminished under the regulations.

Response: Although a permit would now be uniformly required for collection of paleontological resources for scientific study (that is, research), the Department does not consider this requirement would diminish the availability of fossils for such scientific study. Individuals with eligibility and qualifications commensurate with the nature of the proposed research are encouraged to apply for permits to collect paleontological resources for scientific study. The Department expects that researchers would be encouraged by the knowledge that uniform standards to be applied consistently across the Agency now exist for permitted collection of paleontological resources.

Comment: Natural Resources Conservation Service should be a cooperating agency. One respondent expressed the view that the Natural Resources Conservation Service (NRCS) should be designated a cooperating agency with respect to the regulations.

Response: The designation of the NRCS as a cooperating agency with respect to administration of these regulations is beyond the scope of these regulations. The Act applies to Federal land, specifically land controlled or administered by the Secretary of the Interior, except Indian land; or NFS lands controlled or administered by the Secretary of Agriculture. NRCS does not manage Federal land, and consequently the Act and these regulations do not apply to NRCS.

Comment: Public comment period should be extended. Respondents expressed the view that the public comment period for the draft regulations occurred during the summer field collection season, and that the public comment period should be extended by 90 days to ensure adequate feedback by interested parties.

Response: Federal Register publication of the proposed regulations

was outreached to a number of identified stakeholder organizations at the time of publication. Notice was provided of the publication date and the 60-day public comment period, which partially overlapped what respondents have referred to as the summer field collection season. However, the Department considers that few, if any, individuals spend 60 consecutive days performing field work, and that the 60-day comment period afforded ample opportunity for interested parties to provide comment before or after engaging in field activities. One-hundred-seventy-seven (177) respondents provided comments during the comment period, and the comments were nearly evenly distributed between academic paleontologists and casual or amateur collectors. The majority of comments were concentrated among several well-defined areas of the proposed regulations. Given the number of comments received from an affected community of relatively small overall size, the demographics of the respondents, and the focus of comments on certain areas, the Department considers that areas of public concern in the proposed regulations have been appropriately identified, and that interested parties had the opportunity to provide public comment and those that wished to provide comment did so. Moreover, those respondents who requested a comment period extension did also provide comment on the body of the proposed regulations during the designated comment period. Accordingly, the Department elected not to extend the public comment period.

Section by Section Explanation of the Final Rule

The following section-by-section response to the comments on the proposed rule explains the approach taken in the development of the final rule to National Forest System paleontological resources preservation.

Part 291—Paleontological Resources Preservation

This part contains regulations on the management, protection, and preservation of paleontological resources on National Forest System lands using scientific principles and expertise, including the collection of paleontological resources with and without a permit, curation of paleontological resources in approved repositories, confidentiality of paleontological locality information, and criminal and civil penalties.

Section 291.1 Purpose

These final regulations provide for the preservation, management, and protection of paleontological resources on National Forest System (NFS) lands. Legislative history¹ of the Act demonstrates that it was enacted to preserve these resources for current and future generations because paleontological resources are nonrenewable and are an irreplaceable part of America's natural heritage.

This section clarifies that the Secretary of Agriculture (Secretary) will manage and protect paleontological resources on NFS lands using scientific principles and expertise. This section clarifies that science, rather than other values, will be the primary management tool for paleontological resources on NFS lands. These regulations provide for the coordinated management of paleontological resources and promote research, public education, and public awareness.

Section 291.1—Response to Comments

Comment: Who are fossils being saved for? One respondent expressed the view that clarification should be provided regarding who the regulations are saving fossils for.

Response: The Act was enacted and these regulations have been developed to preserve paleontological resources for current and future generations because paleontological resources are nonrenewable and are an irreplaceable part of America's natural heritage. Paleontological resources that are damaged or lost because of theft, vandalism, and/or inappropriate method of collection cannot be replaced or renewed and are lost forever. Paleontological resources on National Forest System lands are part of the public trust. The Act and these regulations would ensure that scientifically important specimens remain Federal property in the public realm, and that ownership of such resources is not transferred to any single individual wherein access to the resource and associated information may become unavailable to the public.

Comment: Regulations replace management using scientific principles and expertise by bureaucracy. Two respondents suggested that the imposition of regulations concerning paleontological resources adds unnecessary policing and bureaucracy

¹ S. 2727: 148 Cong. Rec. S. 6708–6709 (2002) (Statement of Sen. Akaka); S. 546: S. Rep. 108–93 (2003); S. 263: S. Rep. 109–36 (2005); S. 320: 153 Cong. Rec. S. 691–693 (2007) (Statement of Sen. Akaka) and S. Rep. 110–18 (2007); H.R. 554: H. Rep. 110–670, Part 1; and S. 22: 155 Cong. Rec. S. 426 (2009) (Statement of Sen. Akaka).

administered by nonscientists, which is contrary to the management of such resources using scientific principles and expertise as stipulated in the Act.

Response: The Act stipulates that the Secretary of Agriculture shall issue such regulations as are appropriate to carry out the provisions of the Act, as soon as practical after the date of enactment of the Act. Consequently, the development of these regulations is necessitated by the Act. Collection of paleontological resources under appropriate authorizations as established in the regulations will facilitate inventory and monitoring of such resources as called for in the Act, and such inventory and monitoring will provide the knowledge base that is necessary for the management of paleontological resources using scientific principles and expertise, as stipulated in the Act. The Forest Service employs paleontology specialists who will be involved in administration of the regulations.

Comment: Restrictions on casual collection do not encourage uses as stated. Two respondents expressed the view that conditions established for casual collecting do not encourage the scientific, educational, and casual collection of paleontological resources as stated.

Response: The Act stipulates that casual collecting of common invertebrate and plant paleontological resources is subject to conditions regarding personal use, reasonable amount, use of non-powered hand tools, and negligible disturbance. These regulations define and clarify these conditions. Collection of paleontological resources for scientific and educational uses would generally require a permit. The Act and the regulations establish uniform, Agency-wide requirements for casual collecting and permitted collecting for the first time. The Department encourages appropriate uses of paleontological resources, and expects that users of paleontological resources would be encouraged by the knowledge that uniform standards to be applied consistently across the Agency now exist for casual collecting and permitted collection of paleontological resources. Prior to these regulations, use of paleontological resources was largely subject to local administrative unit policy, and variability in policy between administrative units was a source of confusion and discouragement to some users.

Section 291.2 Authorities

Section 291.2 cites the Paleontological Resources Preservation subtitle of the Omnibus Public Land Management Act

(the Act) under which the proposed regulations are promulgated.

Section 291.3 Exceptions

Section 291.3 addresses the scope of these regulations, based on 16 U.S.C. 470aaa–10.

Section 291.3(a) and (b) states that these regulations would not invalidate, modify, or impose any additional restrictions or permitting requirements for activities permitted under the general mining laws, the mineral or geothermal leasing laws, laws providing for minerals materials disposal, or laws and authorities relating to reclamation and multiple uses of National Forest System lands. The USDA would continue to use other applicable laws and regulations as the authority for such restrictions or requirements. The USDA would be authorized to cite the Act or these final regulations as needed for the protection of paleontological resources when planning, managing, regulating, or permitting various activities on National Forest System land covered by the Act.

Section 291.3(c) states that Indian lands, as defined in these regulations, are exempt from the scope of these regulations.

Section 291.3(e) states that the final regulations would not apply to, or require a permit for, casual collecting of a rock, mineral, or fossil that is not protected under the Act and these final regulations. Such rocks, minerals, and fossils are covered by other laws, regulations, and policies.

Section 291.3(f) states that these final regulations would not affect any land other than National Forest System lands or affect the lawful recovery, collection, or sale of paleontological resources from land other than National Forest System lands.

Section 291.3(g) states that members of the general public do not obtain any rights or privileges from the Act or the final regulations and cannot sue the U.S. Government to enforce its provisions.

Section 291.3—Response to Comments

Comment: Reconnaissance collection and exemption from regulation. One respondent expressed the view that reconnaissance collection, which was recommended by that respondent for definition elsewhere in the regulations, be listed as exempted from regulation.

Response: Reconnaissance collection as proposed and defined elsewhere by the respondent is considered research collection. Collection of paleontological resources for research purposes requires a permit and is not exempt from these regulations.

Comment: Reference to collecting a rock, mineral, or fossil should use the

plural form. Two respondents expressed the view that the phrase “collecting of a rock, mineral, or invertebrate or plant fossil” should be changed to “collecting of rocks, minerals, or invertebrate or plant fossils”. One respondent suggested that the word “invertebrate” in the cited passage should be changed to non-vertebrate to clarify the range of fossils that the passage references.

Response: The language in the Exceptions section of the regulations that references rock, mineral, or invertebrate or plant fossil restates the language of the Savings Provisions section of the Act, and would not be appropriate to modify. This applies to both comments by respondents.

Comment: Reference rocks and minerals separate from invertebrate and plant fossils. Two respondents expressed the view that reference to rocks and minerals in the context of exceptions should be separate from invertebrate and plant fossils, in order to clarify that rocks and minerals are not included in the regulations, whereas casual collecting of invertebrate and plant fossils does not require a permit.

Response: The language in the Exceptions section of the regulations that references rock, mineral, or invertebrate or plant fossil restates the language of the Savings Provisions section of the Act, and would not be appropriate to modify. The referenced passage collectively refers to rocks and minerals, which are not paleontological resources and, therefore, not subject to the Act or the regulations. The referenced passage also refers to those invertebrate and plant fossils that are not subject to the Act or these regulations because they are already regulated under another authority listed previously in the Savings Provisions and Exceptions sections. An example is petrified wood, which is regulated under the Mineral Materials Act even though it is a plant fossil.

Comment: Exception for non-profit and educational organizations. One respondent suggested that non-profit organizations, informal research organizations, and educational organizations which have primary organizational goals of education and exploration of the natural world be exempted from the regulations.

Response: The Act and the regulations do not provide for exclusion of selected groups or classes of individuals from compliance with the requirements as established in the Act and regulations.

Comment: Federal protection for private paleontological resources in connected actions. One respondent expressed the view that protection of paleontological resources under the

regulations be expanded to include fossils on private lands in connected actions wherein projects encompassing the private lands receive Federal funding.

Response: The issue of protections afforded to fossils on private lands in the context of federally funded connected actions is beyond the scope of these regulations. The requirements of the Act and these regulations pertain only to paleontological resources that are present on National Forest System lands controlled or administered by the Secretary of Agriculture.

Section 291.4 Preservation of Existing Authorities

Section 291.4 is based on 16 U.S.C. 470aaa-10(5). This section preserves the Forest Service's existing legal and regulatory authorities for managing and protecting paleontological resources in addition to protecting such resources under the Act or these final regulations.

Section 291.5 Definitions

Section 291.5 contains the definitions and terms as defined in the Act or used in these final regulations. This section includes six terms defined by 16 U.S.C. 470aaa: *Casual collecting*, *Federal land*, *Indian land*, *paleontological resource*, *Secretary*, and *State*. In addition, this section defines the terms *common invertebrate and plant paleontological resources*, *reasonable amount*, and *negligible disturbance*. 16 U.S.C. 470aaa required the Secretary to define those terms in the implementing regulations. Lastly, this section defines terms used in the final regulations that may not be broadly understood or that may be defined differently elsewhere, in order to clarify their meaning for these final regulations.

1. The term *Act* means Title VI, Subtitle D of the Omnibus Public Land Management Act on Paleontological Resources Preservation (16 U.S.C. 470aaa through 470aaa-11).

2. The term *associated records* delineates the types of information that are required by 16 U.S.C. 470aaa-4 to be deposited in an approved repository.

3. The term *Authorized Officer* means the person or persons to whom authority has been delegated by the Secretary to take action under the Act.

4. The term *casual collecting* restates the definition contained in 16 U.S.C. 470aaa. To be considered *casual collecting*, the activity means all of the following: Collecting of a reasonable amount of common invertebrate or plant paleontological resources for non-commercial personal use, either by surface collection or the use of non-powered hand tools, resulting in only

negligible disturbance to the Earth's surface and other resources. The Department considers that in establishing the term "casual collection" rather than "amateur collection" or "hobby collection" or "recreational collection", the Act intended that casual collection reflect the commonplace meaning of "casual". The commonplace definition of casual includes the elements "happening by chance; not planned or expected", "done without much thought, effort, or concern", and "occurring without regularity" ("casual" Merriam-Webster.com. 2014. <http://www.merriam-webster.com/dictionary/casual> (4 March 2014)). Consequently, the Department considers that casual collecting would generally be happenstance without intentional planning or preparation. Development of criteria for reasonable amount and negligible disturbance reflects, in part, the view of casual collecting as an activity that generally occurs by chance without planning or preparation. Further, the Act has established that an individual engaging in casual collecting activity in accordance with applicable conditions, in an area which has not been closed to casual collection, does not require a permit or other approval from the Department. Consequently, it is clear that the lack of Department decision space concerning such casual collection performed by an individual reflects that the Act intended that reasonable amount and negligible disturbance criteria established for casual collecting would be below levels that would otherwise require an evaluation under the National Environmental Policy Act (NEPA). Collection of amounts and/or land disturbance at levels that would require a NEPA evaluation would require a permit.

5. The term *collection*, as used in §§ 291.21 through 291.26 of these final regulations, means paleontological resources and any associated records resulting from excavation or removal from National Forest System lands under a permit.

6. The term *common invertebrate and plant paleontological resources* clarifies the types of paleontological resources that may be casually collected in accordance with the Act and these final regulations. This final definition incorporates the plain meaning of common, which means plentiful and not rare or unique. The final definition also incorporates a geographical factor of wide-spread distribution, which means that the resource is distributed over a relatively large geographical area. This final definition also clarifies that

not all invertebrate and plant paleontological resources are common; some are not common because of their context or other characteristics and, therefore, are not eligible for casual collection. The determination of whether invertebrate and plant fossils are common or not common will be made by the Authorized Officer using scientific principles and methods in accordance with § 291.9(c).

7. The term *consumptive analysis* means the alteration, removal, or destruction of a paleontological specimen, or parts thereof, from a collection for scientific research.

8. The terms *curatorial services* and *curation* specifies the minimal professional museum and archival standards employed in the long-term management and preservation of a collection.

9. The term *Federal land* restates the definition contained in 16 U.S.C. 470aaa, and means land controlled by the Secretary except for Indian land as defined in 16 U.S.C. 470aaa.

10. The term *fossil* means any remains, traces, or imprints of organisms that have been fossilized or preserved in or on the Earth's crust. In informal usage, the term *fossil* tends to be used interchangeably with the term *paleontological resource*. However, under 16 U.S.C. 470aaa and these final regulations, a *fossil* may not necessarily be a *paleontological resource*. Remains, traces, or imprints of organisms (that is, *fossils*) are only considered *paleontological resources* under the Act and these final regulations if they are: (1) Fossilized, (2) of paleontological interest, and (3) provide information about the history of life on earth. Therefore, paleontological resources are fossils that have paleontological interest and provide information about the history of life on earth. An example of a fossil that may not be a paleontological resource because it lacks paleontological interest and provides negligible information about the history of life on earth would be an isolated, unidentifiable fragment of an otherwise common invertebrate fossil that was eroded from its native geologic occurrence and subsequently found in a stream bed far from its point of origin.

11. The term *fossilized* as used in the definition of *paleontological resources* means preserved by natural processes, such as burial in accumulated sediments, preservation in ice or amber, replacement by minerals, or alteration by chemical processes such as permineralization whereby minerals are deposited in the pore spaces of the hard parts of an organism's remains. This definition is adapted from the definition

of fossilization in the American Geological Institute's Glossary of Geology (Fifth Edition, 2005, ISBN 0-922152-76-4).

12. The term *Indian land* restates the definition contained in 16 U.S.C. 470aaa.

13. The term *negligible disturbance* as used in the definition of *casual collecting* clarifies that casual collection of common invertebrate and plant fossils may only result in little or no change to the land surface and have minimal or no effect on other resources such as cultural resources and protected or endangered species. Disturbance caused by powered and/or large non-powered hand tools would exceed the "negligible" threshold and would no longer be casual collection.

14. The term *non-commercial personal use* as used in the definition of *casual collecting* clarifies the types of use allowed under casual collection, and means uses other than for purchase, sale, financial gain, or research. Research, in the context of these regulations, is considered to be a structured activity undertaken by qualified individuals with the intent to obtain and disseminate information via publication in a peer-reviewed professional scientific journal or equivalent venue, which increases the body of knowledge available to a scientific community. Common invertebrate and plant paleontological resources collected for research purposes is not personal use and would need to be authorized under a permit in accordance with §§ 291.13 through 291.20. Exchange of common invertebrate and plant paleontological resources among casual collectors would be permissible as long as such resources were collected in accordance with the Act and the final regulations.

15. The term *non-powered hand tools* as used in the definition of *casual collecting* clarifies the types of tools that can be used for the casual collecting of common invertebrate and plant paleontological resources, and means small tools that can be readily carried by hand, such as geologic hammers, trowels, or sieves, but not large tools such as full sized-shovels or pick axes. Larger tools are more likely to create disturbance that is greater than "negligible." The tools must not be powered by a motor, engine, or other power source.

16. The final definition of the terms *paleontological locality*, *location*, and *site* means a geographic area where a paleontological resource is found. Localities, locations, and sites may be as small as a single point on the ground or as large as the area of an outcrop of a

formation in which paleontological resources are found. The term *paleontological site* is used interchangeably with *paleontological locality* or *location*. *Site* as used in the Act and these regulations does not mean an "archaeological site" as used in the Archaeological Resources Protection Act and its regulations.

17. The term *paleontological resource* restates the definition contained in 16 U.S.C. 470aaa. All remains, traces, or imprints of organisms are *paleontological resources* when they are (1) fossilized, (2) of paleontological interest, and (3) provide information about the history of life on earth. The term *paleontological resources* as used in the Act and these final regulations would not include any materials associated with an archaeological resource as defined in the Archaeological Resources Protection Act or any cultural items as defined in the Native American Graves Protection and Repatriation Act.

18. The term *reasonable amount* as used in the definition of *casual collecting* quantifies the maximum amount of common invertebrate and plant paleontological resources that could be removed from National Forest System lands. A person may remove up to 100 pounds in weight per calendar year, not to exceed 25 pounds per day. Development of this reasonable amount criterion reflects, in part, the view of casual collecting as an activity that generally occurs by chance without planning or preparation.

19. The term *repository* identifies the types of facilities into which collected paleontological resources would be deposited as required by 16 U.S.C. 470aaa-4.

20. The term *repository agreement* means a formal written agreement between the Authorized Officer and an approved repository official containing the terms, conditions, and standards by which the repository would agree to provide curatorial services for collections.

21. The term *repository official* identifies any officer, employee, or agent who is authorized by the repository to take certain actions on behalf of the repository, including the acceptance of collections and providing long-term curatorial services for collections.

22. The term *Secretary* as used in these final regulations and defined in 16 U.S.C. 470aaa means the Secretary of Agriculture.

23. The term *State* restates the definition contained in 16 U.S.C. 470aaa.

Section 291.5—Response to Comments

Comment: Include reference to mitigation actions in certain definitions. One respondent expressed the view that some definitions could benefit from including some aspect of paleontological resource mitigation actions.

Response: The respondent does not specify which definitions could benefit from including discussion of mitigation actions pertaining to paleontological resources. Mitigation is not considered a personal use, and collection of paleontological resources related to mitigation would require a permit. The activity of paleontological resource mitigation would commonly, but not always, occur in the context of permitted surface disturbing activities and appropriately considered during the NEPA impact assessment process. Accordingly, reference to mitigation is largely beyond the scope of these regulations.

Comment: Associated records. One respondent suggested that associated records be defined only as permits and repository agreements, and that documents pertaining to locations, collecting events, collectors, and so forth should not be considered associated records.

Response: The Department considers that documents pertaining to locations, collecting events, collectors, and so forth, as listed in the regulations comprise associated records and would be regarded as such by any professionally managed repository institution.

Comment: Authorized Officer. Respondents expressed the view that, in order to make informed decisions as referenced elsewhere in the regulations, the definition of Authorized Officer should reference qualifications and/or expertise in paleontology, including specific training and knowledge of scientific procedures and standards for collecting fossil resources, research design and scientific research, proper curation and storage methods and museum standards, and experience in properly disseminating scientific and educational information for the public benefit. One respondent suggested that requiring an Authorized Officer to consult with an Agency paleontologist would be cumbersome, resource intensive, and difficult to sustain. One respondent questioned whether or not a permit holder or permit issuer could be considered an Authorized Officer.

Response: An Authorized Officer in the Forest Service is delegated the authority to make certain decisions regarding land use in many subject areas

in which a single individual would not be expected to have professional expertise. An Authorized Officer frequently consults with subject matter experts prior to exercising such decision-making authority. In this respect, decisions by an Authorized Officer relating to paleontological issues are no different from such decisions made regarding other specialized disciplines in the Agency. The process of an Authorized Officer consulting with subject matter experts is not cumbersome, but rather is standard procedure in the decision-making process. A permit authorizes a permit holder to perform certain activities as specified in the permit. However, a permit holder would not be considered an Authorized Officer, and such designation is restricted to Forest Service employees.

Comment: Definition of casual collection is too restrictive. Respondents expressed the view that limitations on amounts collected and the use of non-powered hand tools for casual collection are too restrictive and go beyond the intent of the Act, which is to protect paleontological resources from exploitation for commercial gain.

Response: The Act stipulates that casual collecting is subject to conditions including collection of reasonable amounts, collection from the land surface or by using non-powered hand tools, and collection resulting in negligible surface disturbance. The regulations are consistent with these stipulations of the Act. Protection of paleontological resources from commercial exploitation is only one of many purposes of the Act, which also stipulates that the Secretary of Agriculture manage and protect such resources using scientific principles and expertise, and to develop plans for the inventory, monitoring, and scientific and educational use of such resources.

Comment: Casual collection should include reconnaissance collection. Respondents suggested that reconnaissance collection for research be included in the definition of casual collection.

Response: Reconnaissance collection is considered research, does not constitute personal use, and requires a permit.

Comment: Collection of common plant fossils with non-powered hand tools should not require a permit. One respondent expressed the view that the collection of any common plant fossils with non-powered hand tools should not require a permit.

Response: Collection of common plant fossils using non-powered hand tools could be considered casual

collecting and not require a permit, providing that all other conditions pertaining to reasonable amount and negligible disturbance as established for casual collecting are met. A permit would be required if such collection is outside the scope of conditions established for casual collecting.

Comment: Shark and fish teeth should be included in the definition of casual collection. One respondent suggested that the collection of shark and/or fish teeth from the surface of natural erosional exposures should be considered casual collection, unless the subject specimens are rare.

Response: The Act and the regulations stipulate that casual collecting is restricted to common invertebrate and plant fossils. Shark and fish teeth are vertebrate fossils, and are thereby excluded from casual collection.

Comment: Collection during educational field trip. One respondent suggested that clarification should be provided concerning whether collection during an educational field trip led by a school, university, or museum would be considered casual collection or would require a permit.

Response: A permit under these regulations would not be required for casual collecting by individual participants in an educational field trip, provided that collections by individuals are for personal use, do not exceed individual reasonable amount limits and the collateral impacts to associated resources that may be caused by the group do not exceed negligible disturbance criteria established for casual collection. However, the nature of the trip, including number of participants and potential collateral impacts to associated resources, could trigger the need for a special use permit pertaining to group uses that is unrelated to paleontological collection. Questions pertaining to group uses unrelated to paleontological collection should be directed to special uses staff at the local Forest Service Field Office in which a field trip is planned.

Comment: Casual collection may promote illegal collection. One respondent suggested that allowing casual collection would facilitate illegal collection for resale under the pretext of casual collection, resulting in the loss of collection locations.

Response: The Act establishes that casual collecting is an activity that may be performed on National Forest System lands, providing that established conditions are met. The Department would rely largely on the ethics of an informed and law-abiding collecting public, who are aware of conditions for casual collecting as established in

regulation, and elect to legally collect by adhering to those conditions.

Documented intentional noncompliance with the conditions established for casual collection would subject the collector to enforcement action.

Comment: Regulation of casual collection is impossible. One respondent expressed the view that monitoring and regulation of casual collection by Department personnel in the field would be impossible.

Response: The Act does not require the direct monitoring or regulation of casual collecting. Because the Act and the regulations establish that casual collecting does not require a permit or other advance approval, the Department agrees that it would be nearly impossible to monitor or track every individual occurrence of casual collecting. In this respect, casual collecting is no different from other activities that occur on National Forest System lands that do not require a permit. The Department would rely largely on the ethics of an informed and law-abiding collecting public, who are aware of conditions for casual collecting as established in regulation, and elect to legally collect by adhering to those conditions. Moreover, the effects of casual collecting may be indirectly monitored or tracked by assessing cumulative impacts in known areas commonly used for casual collection.

Comment: Common fossils of limited interest to amateur collectors. One respondent suggested that amateur fossil collectors, like many amateur mineral collectors, would not be interested in casual collection limited to common and abundant invertebrate and plant fossils because such specimens are too commonplace. Interest would reside largely in rare or uncommon varieties, which are excluded from casual collection under these regulations.

Response: The Act and the regulations establish that casual collecting only pertains to common invertebrate and plant paleontological resources. Intentional collection of rare or uncommon specimens would require a permit.

Comment: Definition of common invertebrate and plant paleontological resources should be clarified. Respondents suggested that the definition of common invertebrate and plant paleontological resources requires more detail and clarification in order to avoid confusing collectors. Respondents also expressed the view that common invertebrate and plant fossils be explicitly excluded from the definition of paleontological resources and thereby excluded from regulation.

Response: The definition of paleontological resources in the Act and the regulations includes common invertebrate and plant fossils, and the Act explicitly references common invertebrate and plant paleontological resources in the context of casual collecting. Criteria for whether a paleontological resource would be considered common could reflect a variety of factors including, but not limited to, context of occurrence in a particular location, relative abundance, and extent of distribution. It is not practical to address in regulations each factor that could be pertinent to determination of what constitutes common with respect to common invertebrate and plant paleontological resources.

Comment: Include criterion of formal description in definition of common invertebrate and plant paleontological resources. Two respondents suggested that a fossil species be considered common if it has been formally described in a scientific publication and type specimens have been deposited in an appropriate repository; conversely, a fossil species would only be considered rare if it has not been described or is awaiting description in scientific publication. One respondent suggested that if ten or more specimens of a species awaiting formal description have been deposited in a repository, that species may be considered common.

Response: Criteria for whether or not a paleontological resource would be considered common or rare could reflect a variety of factors including, but not limited to, context of occurrence in a particular location, relative abundance, and extent of distribution. The proposed criterion of formal taxonomic description has no bearing on whether a particular occurrence of a specimen might be considered common. Many formally described species may be considered rare, and conversely, many undescribed species could be considered common. Moreover, the process as described by the respondents is cumbersome and would be nearly impossible to implement, particularly with regard to tracking number of specimens referred to a type. This would be especially true for any described species whose types did not originate from National Forest System lands. The Department will not incorporate a criterion of formal species description in the definition of common.

Comment: Clarification regarding paleontological resources that are considered to be rare. Respondents suggested that additional information should be provided concerning which

paleontological resources are considered to be rare, and expressed the view that a list be provided concerning which paleontological resources are considered rare and which are considered common. One respondent expressed the view that the apparent rarity of certain fossils often reflects the availability of access to collecting areas, rather than actual rarity of specimens. Respondents suggested that without expert knowledge, it would be difficult for amateur collectors to determine if a specimen is rare or common. One respondent expressed the view that clarification should be provided regarding whether or not a collector would be considered in jeopardy under the law if a rare specimen was collected inadvertently. Respondents also expressed the view that an Authorized Officer should not determine whether or not a paleontological resource is rare.

Response: Criteria for whether or not a paleontological resource would be considered common or rare could reflect a variety of factors including, but not limited to, context of occurrence in a particular location, relative abundance, and extent of distribution. Consequently, an assessment of commonness or rarity would not necessarily apply universally to a particular taxon, and is therefore not appropriate for determination in the form of a taxonomic list. It is not practical to address in regulations each factor that could be pertinent to determination of what constitutes common or rare with respect to common invertebrate and plant paleontological resources. A collector would not necessarily be placed in jeopardy under the law for inadvertent collection of a rare specimen during casual collection. The Department could consider the intent and degree of non-compliance regarding inadvertent collection of rare specimens regarding potential enforcement. The regulations establish a procedure wherein an Authorized Officer would consider a recommendation by a subject matter expert in making a determination of whether an invertebrate or plant paleontological resource is common or rare.

Comment: Associations of partial specimens should be addressed in definition of common invertebrate and plant paleontological resources. One respondent suggested that some isolated parts and/or incomplete specimens of certain organisms may be common, but associated parts and/or complete specimens of the same organism may be rare. The respondent questioned whether such species would be

considered common or rare under the regulations.

Response: Criteria for whether or not a paleontological resource would be considered common would include context of occurrence in a particular location and could include the nature of preservation, such as completeness and/or associations of elements of a specimen. Consequently, an assessment of common could largely reflect the context of a specimen, and not necessarily apply universally to a particular taxon. For example, concentrations of disarticulated columnals of a particular crinoid species might be considered common, whereas a complete and fully articulated specimen of the same species would generally be considered rare. Consequently, it is not practical to address in regulations each factor that could be pertinent to determination of what constitutes common with respect to common invertebrate and plant paleontological resources.

Comment: Criterion of widespread distribution should be clarified. Respondents suggested that clarification should be provided concerning what constitutes widespread distribution. One respondent suggested that most species are defined on the basis of geologic horizons and localities, and therefore can only be considered abundant in local areas, rather than widespread areas.

Response: The characteristic of widespread distribution is considered dependent on factors including, but not limited to, the paleoecology of the organisms in question and the distribution of rock outcrops in which they may occur. It is not practical to address in regulations each factor that could be pertinent to determination of what constitutes widespread distribution with respect to common invertebrate and plant paleontological resources. In general, a species that is present in rocks distributed through the greater extent of a given Forest Service administrative Region could be considered to have widespread distribution in that Region. The respondent's suggestion that most species can only be considered abundant in local areas and not of widespread distribution is conjectural and not substantiated. That assertion is contrary to the longstanding paleontological and stratigraphic concept of index fossils, whose geologic utility is predicated on their having the key attributes of easy identification, abundance, narrow temporal range, and widespread geographic distribution.

Comment: Intermingling of common and rare species. Respondents suggested

that in many cases common and rare species are intermingled, and questioned whether locations in which such intermingling occur would be closed to casual collection. One respondent suggested that amateur collectors often donate rare specimens found in such circumstances to museums, and that closure of such locations to casual collection would result in fewer rare species being collected and described. One respondent suggested that if locations containing intermingled common and rare species are closed to collection, amateur collectors would not disclose finding of rare species in order to avoid closure of such areas. One respondent suggested that if such areas were closed, opportunities for children to casually collect would be lost.

Response: The respondents' suggestion that common and rare species are intermingled in many cases is conjectural and not substantiated. In cases where intermingling is demonstrated, the Authorized Officer has the ability to close an area to casual collection if it is considered that rare paleontological resources may be placed at risk by inadvertent casual collection. The potential for casual collectors to inadvertently collect rare specimens and later donate them to repositories could be considered in area closure decisions. The existence of alternative opportunities for children to casually collect could also be considered in area closure decisions. The Department expects that ethical casual collectors would not withhold information concerning the occurrence of rare specimens for the purpose of avoiding potential area closures.

Comment: Discovery of a new species. Two respondents expressed the view that the regulations should include procedures for amateur collectors to follow if they collect specimens that may be considered to represent new species. The respondents suggested specific procedures including collection and packaging protocols, location documentation, contacting professional paleontologists, and other related actions.

Response: The Department does not consider that discovery of new species would be a commonplace occurrence in the context of casual collection. Protocols related to the documentation and description of new species are the subjects of an extensive body of scientific taxonomic literature, and the formal establishment of such protocols in the context of casual collecting is beyond the scope of the regulations. Specimens that could represent new species that were inadvertently

collected during casual collection should be returned to the Forest Service for appropriate disposition.

Comment: Credit to amateur collectors of new species. Two respondents suggested that the regulations require that amateur collectors who find new species be explicitly acknowledged in professional publications in which such species are formally described. One respondent suggested that a \$500.00 penalty be assessed to authors of such papers who fail to acknowledge a casual collector who provided the specimens upon which a new species is described.

Response: The Department does not consider that discovery of new species would be a commonplace occurrence in the context of casual collection. The issue of providing credit or acknowledgment of a collector's contribution to published research is an ethical matter beyond the scope of the regulations.

Comment: Consumptive analysis. One respondent suggested that the definition of consumptive analysis is too broad, and should be limited to procedures that would destroy an entire specimen or a majority of a specimen.

Response: Consumptive analysis is commonly understood to mean any procedure that would entail irrevocable alteration (that is, consumption) of a part of a specimen for the purpose of acquiring information that cannot be obtained any other way; for example, removing and destroying a plug of bone to determine chemical composition or microscopic structure. Important and/or unique scientific information may be represented in a small portion of a specimen, independent of the entire specimen or majority of a specimen. Consequently, it would not be appropriate to define consumptive analysis only in the context of destruction of a complete specimen, or the majority of a specimen.

Comment: Curatorial services and curation. One respondent suggested that reference to purposes for lending a collection be clarified by listing exhibition as an educational purpose. One respondent suggested that the definition of curatorial service and curation reference the intellectual services that trained scientists provide to collections, including management decisions that maximize scientific and educational value of the collections.

Response: The Department considers that exhibition of specimens is an educational purpose, and does not require separate listing. The Department considers that "intellectual services" provided by trained repository staff scientists would be the basis for

professional collections management practices and decisions employed by such staff, and does not require separate listing.

Comment: Federal land. One respondent expressed the view that the definition of Federal land as discussed in the Preamble reads awkwardly and should be rephrased.

Response: The Department agrees with the respondent's view and has added the word "and" to read: "9. The term Federal land restates the definition contained in 16 U.S.C. 470aaa of the Act, and means land controlled by the Secretary except for Indian land as defined in 16 U.S.C. 470aaa."

Comment: Definition of fossil should include temporal component.

Respondents expressed the view that the definition of fossil should include a component of geologic time; specifically that organic remains and/or traces that post-date the Pleistocene epoch (post-glacial time) not be considered as fossils. One respondent suggested that organic remains and/or traces that occur in archeological time frames and/or modern sediment deposits originating from catastrophic events such as floods or mud entrapment not be considered as fossils.

Response: The existing definition of fossil is one that is commonly used in the scientific community and largely conforms to the definition of fossil as employed by the American Geological Institute (AGI). In addition, the existing definition of fossil is consistent with the definition of paleontological resource as established by the Act and the regulations, which does not include a temporal criterion. Incorporation of an end-Pleistocene limit to determine whether or not a particular specimen is a fossil would be arbitrary and not based in science. Similarly, reference to occurrence in an archeological time frame to determine whether or not a specimen is a fossil would also be arbitrary and not based in science. Organic remains and traces in modern sediments, originating from catastrophic events that occurred not more than several decades before the present, would generally not be considered fossils.

Comment: Definition of fossil should be clarified regarding organic traces. One respondent suggested that the definition of fossil be clarified regarding whether organic traces (trace fossils) are considered to be fossils or sedimentary structures.

Response: The definition of fossil clearly states that "fossil means any fossilized remains, traces, or imprints of organisms . . ." Consequently, trace

fossils are considered fossils as per the definition.

Comment: Definition of "fossil" as discussed in preamble overuses the word "paleontological". One respondent expressed the view that the word "paleontological" is overused in the discussion of the definition of "fossil" in the preamble. The respondent suggested that the discussion would be improved by substituting the word "scientific" for "paleontological" with reference to the term "paleontological interest".

Response: The discussion of "fossil" in the preamble clarifies the distinction between a fossil and a paleontological resource, and in so doing restates the definition of paleontological resource as established in the Act and the regulations. That definition uses the term paleontological interest, rather than scientific interest. Because the referenced passage restates an established definition, it will not be changed.

Comment: Definition of fossilized is too broad. One respondent suggested that the definition of fossilized is too broad, and that the definition should include a component of geologic age or other time constraint, or be deleted entirely.

Response: The existing definition of fossilized refers to natural processes that would operate to transform organic remains, traces, or imprints into fossils. The definition is focused on processes rather than time, and processes of fossilization operate over a wide range of time scales, often of unknown extent, that reflect the complex interactions of diverse physical and chemical environmental variables. The existing definition of fossilized is consistent with definition of the related term fossilization as employed by the American Geological Institute (AGI), which likewise does not include a time constraint.

Comment: Indian land. One respondent expressed the view that the regulations criminalize activities of young Native Americans by not allowing them to collect fossils for resale on their own lands.

Response: The Act and the regulations explicitly state that Indian lands are not subject to the Act or the regulations. Fossil collecting activities by Native Americans on Indian lands would be under the jurisdiction of Tribal authorities.

Comment: The definition of negligible disturbance is ambiguous. Respondents expressed the view that the definition of negligible disturbance is vague, arbitrary, subject to individual interpretation, and should be clarified.

Respondents suggested that the definition of negligible disturbance include measurable limits expressed in volumes, amounts, and/or areas such as square meters, square yards, and/or acres. One respondent suggested a maximum disturbance limit of one square meter. One respondent suggested that criteria for excessive disturbance be defined and used in place of the negligible disturbance criterion.

Response: The amount of physical disturbance created during casual collection is not the only criterion that would determine whether overall disturbance is negligible or not. Other factors that would relate to overall disturbance could include, but would not be limited to, location specific factors such as proximity to threatened or endangered species and/or other sensitive resources and visual/aesthetic considerations. It is not practical to address in regulations the entire spectrum of factors that could be pertinent to determination of what constitutes negligible disturbance related to casual collection at any particular location. In general, surface collection by hand would be inherently less likely to exceed negligible disturbance than would be collection involving removal of materials using hand tools. The Act requires that negligible disturbance be determined by the Secretary, rather than excessive disturbance. Moreover, for the same reasons as presented above, it would be no more practical to establish specific criteria for excessive disturbance in the regulations than it would be to establish such criteria for negligible disturbance.

Comment: Negligible disturbance and non-powered hand tools. Two respondents suggested that negligible disturbance be defined as any disturbance resulting from the use of non-powered hand tools in casual collection. One respondent suggested that allowing only non-powered hand tools would place practical limits on amounts of material that could be removed without difficulty and would thus be self-regulating. One respondent suggested that employing the criterion of non-powered hand tools would be easily identifiable in the field and would thereby facilitate enforcement of the negligible disturbance criterion.

Response: In separately specifying conditions of negligible disturbance and use of non-powered hand tools in the context of casual collecting, the Act recognizes that these criteria are distinct. The use of non-powered hand tools can result in disturbance of large surface areas to an extent that would be considered greater than negligible by any other objective criterion.

Consequently, it would not be appropriate to define negligible disturbance as any disturbance that was created using non-powered hand tools. Moreover, the amount of physical disturbance created during casual collection is not the only criterion that would determine whether overall disturbance is negligible or not. Other factors that would relate to overall disturbance could include, but would not be limited to, location specific factors such as proximity to threatened or endangered species and/or other sensitive resources and visual/aesthetic considerations.

Comment: Authorized Officer should not determine negligible disturbance. One respondent suggested that an Authorized Officer should not have the authority to determine whether disturbance is negligible or not, because such decisions may be subjective and/or biased.

Response: The Department considers that in many circumstances, what constitutes negligible disturbance would depend on the location of the activity and could reflect a number of specific factors that are unrelated to paleontological resources. Authorized Officers in the Forest Service have been delegated the authority to make certain land use decisions in the administrative units under their jurisdiction. For any given location, the Authorized Officer is appropriately positioned to decide, based on recommendations of local staff specialists, whether or not a particular level of surface disturbance would be considered negligible or not.

Comment: Disturbance related to fossil collection is negligible compared to other uses. Respondents expressed the view that casual collection using only non-powered hand tools should not be subject to a negligible disturbance criterion, since surface disturbance as a consequence of such collection is negligible compared to surface disturbance resulting from other activities allowed on National Forest System lands such as minerals extraction, logging, and grazing.

Response: The Act requires that the regulations define the term "negligible disturbance" in the context of casual collection. Contrary to casual collecting, other surface disturbing activities as specified by the respondents require authorization from the Forest Service. Such authorizations generally require a formal NEPA assessment in which potential impacts associated with the activity are disclosed and potential mitigation of such impacts may be proposed. Because casual collecting does not require an authorization or other Agency decision, conditions

established for casual collection must ensure that surface disturbance related to such collection is negligible and does not exceed any threshold that would otherwise trigger the need for a NEPA assessment of the activity.

Comment: Negligible disturbance criterion impractical for serious amateur collectors. One respondent expressed the view that collection of good fossil specimens by serious amateur collectors often requires freshly exposing large areas of bedrock, which would not be consistent with a requirement for little or no change to the land surface. The respondent also suggested that the exclusion of large hand tools and/or powered tools would not allow exposure of fresh bedrock which is necessary for such collection.

Response: Land disturbance to the extent described by the respondent would generally be considered greater than negligible, and would require a permit. Collection resulting in disturbance greater than negligible and/or by using hand tools larger than allowed for casual collection would require a permit.

Comment: Cumulative surface disturbance in large common collecting areas should be addressed. Respondents expressed the view that clarification should be provided concerning how criteria for negligible disturbance would be applied in common collection locations subject to casual collection by large numbers of collectors. Respondents suggested that in such common collecting locations, areas disturbed by individual collectors may coalesce, and areas disturbed by individual collectors may not be able to be differentiated from preexisting disturbed areas.

Response: Each individual engaging in casual collecting in a common collection area would be expected to adhere to the negligible disturbance criterion. Common collecting areas in which cumulative surface disturbance levels exceed negligible could be subject to NEPA assessment of surface impacts. Such areas could be subject to closure to casual collecting and/or restricted to collecting under permit.

Comment: Reclamation of disturbed areas. One respondent expressed the view that a collector should be allowed to exceed the negligible disturbance criterion provided that the disturbed area is reclaimed by the collector before leaving. Two respondents suggested adding a requirement that all areas disturbed by collection should be filled-in and graded. One respondent suggested that small areas of disturbance should not require

reclamation because they will be restored by natural processes over time.

Response: Collection resulting in disturbance that exceeds a negligible level would require a permit. The need for reclamation of areas in which disturbance exceeds negligible levels would be addressed in a permit. The criterion of negligible disturbance in casual collection implies that disturbance would be of such limited extent that reclamation would not be necessary.

Comment: Negligible disturbance and consecutive collecting trips. One respondent suggested that that clarification should be provided concerning how negligible disturbance criteria would be applied in the event of consecutive collecting trips made to the same area by an individual collector.

Response: The criterion of negligible disturbance would not be assessed cumulatively, but rather would be applied to disturbance resulting from each collecting event performed by an individual.

Comment: Definition of non-commercial personal use is overly restrictive. Respondents expressed the view that the definition of non-commercial personal use is too restrictive, particularly with reference to exclusion of use for research. Respondents suggested that excluding research would prevent casual collectors from developing personal expertise by researching their finds, and that research, publication, and donation to museums of specimens that were collected by knowledgeable amateur collectors would be made illegal. One respondent suggested that clarification should be provided regarding whether or not it would be a violation if casually collected specimens were later donated to an academic institution for research. Respondents suggested that the term research be removed from the definition, and one respondent expressed the view that it is ironic for research to be considered a commercial use.

Response: The definition of non-commercial personal use has been modified to further characterize research, which is not considered to be a personal use. Research, in the context of these regulations, is considered to be a structured activity undertaken by qualified individuals with the intent to obtain and disseminate information via publication in a peer-reviewed professional scientific journal or equivalent venue, which increases the body of knowledge available to a scientific community. In accordance with this characterization of research, casual collectors seeking to develop

personal expertise through study of collected specimens would not be considered to be engaging in research. Specimens that were casually collected with the intent of personal use may be donated to a repository at a later time; however, collection with the intent to donate to a repository would not constitute casual collection and would require a permit. The Department does not expect this to be a commonplace scenario. The Department does not consider research to be a commercial use; however, research is likewise not considered to be a personal use and, therefore, requires a permit.

Comment: Include mitigation in definition of non-commercial personal use. One respondent suggested that the definition of non-commercial personal use should specify that mitigation of damage or potential damage to paleontological resources be excluded from consideration as non-commercial personal uses.

Response: Mitigation of damage or potential damage to paleontological resources generally occurs in the context of permitted projects on National Forest System lands. Permitted projects are frequently commercial in nature and associated paleontological resource mitigations are always managed as professional, rather than personal activities. Consequently, mitigation activities could not reasonably be construed as non-commercial personal use, and there is no need to specifically include discussion of mitigation in the definition of non-commercial personal use.

Comment: Definition of non-commercial personal use should not reference financial gain or research. One respondent suggested that reference to financial gain and research should be removed from the definition of non-commercial personal use in order to be consistent with the discussion of casual collection in the context of outfitters and guides in the section "Proper Consideration of Small Entities".

Response: Reference by the respondent to the discussion of casual collection associated with outfitters and guides in the section "Proper Consideration of Small Entities" is presented out of context, and the definition of non-commercial personal use as proposed is consistent with the referenced discussion. The referenced discussion establishes that participants in an outfitter/guide operation that is not paleontological in nature may individually engage in casual collection as an incidental activity which is not related to the commercial purpose of the permitted outfitter/guide operation, and

that the regulations would not be expected to negatively impact a permitted small entity operation that is not paleontological in nature.

Commercial use and/or financial gain from paleontological resources are not allowed in accordance with the Act and these regulations. Research, while not considered commercial, is also not considered a personal use.

Comment: The definition of non-powered hand tools is too restrictive. Respondents expressed the view that the definition of non-powered hand tools is more restrictive than stipulated by the Act, which does not establish a limit on the size of non-powered hand tools. Respondents suggested that large non-powered hand tools, including but not limited to full-sized pick axes, sledge hammers, crow bars, pry bars, and shovels are necessary to remove unconsolidated overburden and expose fresh bedrock containing paleontological resources and to extract paleontological resources from hard sedimentary rocks. Respondents suggested that the definition should not focus on tool size, but rather should specify that tools be used that are appropriate to the circumstances of the collecting in order to minimize damage to specimens. Respondents expressed the view that use of hand tools that are too small and inappropriate for collecting conditions will result in loss or damage of paleontological specimens. One respondent expressed the view that hand tools should be defined as any tools that are not powered by a motor, engine, or other mechanical power source, and that tool size should not be included in the definition.

Response: The Department considers that casual collecting would generally be happenstance without intentional planning or preparation, and that use of large hand tools requiring two-handed operation would be inconsistent with such activity and would entail a higher potential for greater than negligible land surface disturbance. Land disturbance to the extent described by respondents would generally be considered greater than negligible, and would require a permit. Collection resulting in disturbance greater than negligible and/or by using hand tools larger than allowed for casual collection would require a permit.

Comment: The definition of non-powered hand tools is arbitrary and vague. Respondents have expressed the view that the definition of non-powered hand tools is arbitrary, vague, and will create confusion. Respondents suggest that non-powered hand tool of any particular type exist in a nearly continuous range of sizes, and suggested

that clarification should be provided concerning where the upper size limit would be placed in such continuous series, or how it would be determined if a tool is too large.

Response: Generally, a non-powered hand tool that requires use of both hands to wield effectively would be considered too large for use in casual collection. The Department considers that casual collecting would generally be happenstance without intentional planning or preparation, and that use of large hand tools requiring two-handed operation would be inconsistent with such activity and would entail a higher potential for land surface disturbance greater than negligible. Use of hand tools larger than allowed for casual collection could be authorized for collection under a permit.

Comment: Specification of certain tools. Respondents expressed the view that clarification should be provided regarding whether or not use of chisels, pry bars, crow bars, Marsh picks, geopicks, hoe-picks, and/or pick-axes would be allowed in casual collection.

Response: The level of specificity requested by the respondents is not appropriate for regulation. Generally, a non-powered hand tool that requires use of both hands to wield effectively would be considered too large for use in casual collection.

Comment: Permit and use of large hand tools. Respondents suggested the clarification should be provided regarding whether or not use of non-powered hand tools larger than allowed for casual collection would be authorized under a permit.

Response: Use of hand tools larger than allowed for casual collection could be authorized for collection under a permit.

Comment: Restriction on use of large hand tools will stop casual collection. One respondent expressed the view that limiting hand tool sizes will stop casual collecting activities. Another respondent suggested that limiting use of large shovels and pick-axes will criminalize collection by children and volunteer collectors.

Response: The respondents' suggestions that restricting use of large tools in casual collecting would stop such activities and would criminalize collection by children and volunteers are speculative and not substantiated. Use of hand tools larger than allowed for casual collection could be authorized for collection under a permit.

Comment: Definition of non-powered hand tools should not reference negligible disturbance. One respondent expressed the view that discussion of

the definition of non-powered hand tools in the preamble should not reference negligible disturbance, because negligible disturbance should be based on the amount and nature of disturbance rather than the type of tool being used.

Response: The actual definition of non-powered hand tools does not reference the negligible disturbance criterion. The preamble discussion of the definition of non-powered hand tools provides clarification that in developing the definition, the Department recognizes that larger tools have an inherent capacity to disturb larger areas to an extent greater than would be considered negligible.

Comment: Paleontological localities that contain more than one fossil assemblage. One respondent suggested that clarification should be provided concerning the potential existence of successive geologic beds at any given locality, each of which may contain distinctly different fossil assemblages. The respondent questioned whether or not each distinct fossil assemblage would be considered separately in determining collection limits.

Response: The reasonable amount limit established for casual collection is an absolute specified amount, and is not a "per locality" or "per bed" or "per fauna" limit. Amounts collected at different locations, from different beds, and/or representing distinct faunas would all contribute cumulatively to the established total reasonable amount annual limit.

Comment: Definition of paleontological resources does not recognize diversity of types of fossils. Respondents expressed the view that there exist a wide variety of fossils and that the regulations unnecessarily consider all of them to be paleontological resources and subject to regulation. Respondents suggested that common invertebrate and plant fossils should be excluded from the definition of paleontological resources because they do not require the same level of protection as vertebrate fossils and cultural resources.

Response: Paleontological resources are defined in the Act, and the regulations restate the definition established in the Act. The Department considers that the definition of paleontological resources in the Act and the regulations appropriately includes the diversity of fossil organisms and their remains, traces, and imprints. Common invertebrate and plant fossils are included in the definition of paleontological resources.

Comment: Paleontological resources do not need to be defined or regulated.

One respondent expressed the view that there is no need to define or regulate paleontological resources because there are other mechanisms in place to protect the few fossil sites that merit protection, such as designating them National Parks or Monuments.

Response: Paleontological resources are defined in the Act, and the regulations restate the definition established in the Act. The Act stipulates that the Secretary of Agriculture shall manage and protect paleontological resources on National Forest System Lands using scientific principles and expertise, and these regulations establish procedures for such management. The Act and these regulations apply to all National Forest System lands.

Comment: Definition of paleontological resources does not address reproductions. One respondent suggested that the definition of paleontological resources should explicitly exclude reproductions, such as casts made from actual specimens.

Response: The definition of paleontological resources refers to fossilized remains, traces, or imprints of organisms. Casts and other reproductions are clearly not fossilized remains, traces, or imprints of organisms, and would not be considered paleontological resources under the existing definition, and do not require explicit exclusion by listing them.

Comment: Definition of paleontological resources is too broad and ambiguous. One respondent expressed the view that the definition of paleontological resources is overly broad and ambiguous. The respondent suggested that the definition appears to have been modeled after the Archaeological Resources Protection Act (ARPA) which covers very different resources, and that the definition of paleontological resources and the regulations should better reflect those resource differences.

Response: The definition of paleontological resources in the regulations restates the definition in the Act. The Department considers that the definition of paleontological resources in the Act and the regulations appropriately includes the diversity of fossil organisms and their remains, traces, and imprints, and is, therefore, neither overly broad nor ambiguous. The definition is consistent with common use of the terms “paleontological resources” and “fossil” within the scientific community. The respondent’s reference to that definition being modeled after ARPA bears no relevance to the adequacy and/or appropriateness of the definition.

Comment: Reference to archeological resources should be clarified. One respondent expressed the opinion that clarification should be provided to indicate that fossils found in association with archeological resources would otherwise be considered paleontological resources when found in a non-archeological context.

Response: The definition of paleontological resources in the Act and in these regulations excludes fossils associated with archaeological resources. The Department does not consider it necessary to additionally state in the definition the converse case, that fossils not associated with archaeological resources would be considered paleontological resources.

Comment: Definition requested for “qualified paleontologist”. One respondent suggested that a definition be provided for the term “qualified paleontologist”.

Response: Qualifications are evaluated in the context of being commensurate with a particular task or project, and do not comprise a defined set of universally applicable criteria. The term “qualified paleontologist” has been removed from these regulations and, therefore, does not require definition in this final rule.

Comment: The definition of reasonable amount is overly restrictive. Respondents expressed the view that the definition of reasonable amount is overly restrictive, arbitrary, and ambiguous. Respondents suggested that the definition does not recognize the variety of fossil types and their occurrences, and that many invertebrate fossils occur in countless numbers and would be lost by erosion if not collected. One respondent expressed the view that amount limits for the collection of common and abundant invertebrate and plant fossils are unnecessary, because most sites bearing such fossils are continually replenished by natural processes of erosion. One respondent suggested that reasonable amounts be eliminated because there are too many field variables to consider in establishing collection limits.

Response: The Act requires that the regulations define the term reasonable amount in the context of casual collecting. In establishing a reasonable amount, the Department considered the adjective “casual” as used in the term “casual collecting”. The commonplace definition of casual includes the elements “happening by chance; not planned or expected”, “done without much thought, effort, or concern”, and “occurring without regularity” (“casual” Merriam-Webster.com. 2014. <http://www.merriam-webster.com/>

dictionary/casual (4 March 2014)). The Department considers that in establishing the term “casual collection” rather than “amateur collection” or “hobby collection” or “recreational collection”, the Act intended that casual collection reflect the commonplace meaning of “casual”, and that such casual collecting would generally be happenstance without intentional planning or preparation. The preamble discussion of the definition of casual collection has been modified to include this clarification. Consistent with such unplanned collection, a reasonable amount would generally be smaller rather than larger, and would not reflect site-specific and complex factors such as rock types and other field variables. The Department has considered public comments on the proposed rule and has modified the reasonable amount definition to comprise a criterion of 100 pounds per person per calendar year, not to exceed 25 pounds per person per day. Collection of amounts greater than the reasonable amount established for casual collection would require a permit.

Comment: Reasonable amount limits will discourage recreational fossil collection. One respondent expressed the view that the specified reasonable amounts could be exceeded in minutes, and would consequently discourage recreational and amateur collectors from making long distance trips to collect. One respondent suggested that limits on reasonable amounts would reduce the opportunity to use casually collected fossils in public education to stimulate interest in science among children. Respondents expressed the view that the specified limits on reasonable amount would be easy to violate unintentionally, and would criminalize casual collecting.

Response: Collection for recreational and/or educational purposes of amounts greater than the reasonable amount established for casual collection is not precluded by the regulations, but would require a permit. The Department could consider the intent and degree of non-compliance regarding collection greater than the established reasonable amount in decisions regarding potential enforcement.

Comment: Specified reasonable amounts will result in specimen loss by culling. Respondents expressed the view that imposing limits on reasonable amounts would lead to loss and/or destruction of specimens because collectors would high-grade, field-trim, and/or otherwise cull collected specimens in the field in order to meet specified collection limits.

Response: Collection of amounts greater than the reasonable amount established for casual collection would require a permit. The Department expects that responsible collectors would strive to minimize collateral damage to specimens resulting from culling and/or field-trimming. Discarded material would be considered as disturbed surface material in context of the negligible disturbance criterion.

Comment: Reasonable amount limits will not permit adequate scientific sampling. One respondent expressed the view that specified limits on reasonable amounts would result in inadequate sampling of fossil populations and tainted scientific hypotheses resulting from such samples. One respondent suggested that the reasonable amount limits are too low to be able assess fossil population variation and to document changes of such variation across gradients in space and time.

Response: Collection as described by the respondents for the purpose of obtaining sample sizes representative of the variation in a natural population would be considered research, not casual collection, and would require a permit.

Comment: Reasonable amount should be what can be safely stored in a personal residence. Two respondents suggested that reasonable amount be defined as the volume of material that can be safely stored in an individual's personal residence. One respondent suggested that reasonable amount should be defined as an amount of collected material that is capable of being properly transported and stored for future use.

Response: The Department has considered public comments on the proposed rule and has modified the reasonable amount definition to comprise a criterion of 100 pounds per person per calendar year, not to exceed 25 pounds per person per day. The amounts suggested by the respondents greatly exceed a reasonable amount considered in the context of casual collection. Collection of amounts greater than the reasonable amount established for casual collection would require a permit.

Comment: Limits on reasonable amounts will reduce collaboration between amateurs and professionals. One respondent expressed the view that the specified reasonable amounts will have a chilling effect on long term collaboration between amateur collectors, professional paleontologists, and repository institutions.

Response: The respondent's suggestion that reasonable amount limits would reduce collaboration

between amateur collectors, professional paleontologists, and repository institutions is conjectural and not substantiated. Amateur collectors may apply for a permit to collect amounts greater than the reasonable amount established for casual collection. In addition, the definition of reasonable amounts should not affect working relationships among parties interested in paleontological resources on National Forest System lands.

Comment: Collection of larger quantities for donation and/or education. One respondent suggested that clarification should be provided concerning whether or not quantities of abundant resources that exceed the specified reasonable amount could be collected for donation for educational purposes.

Response: Amounts greater than the reasonable amount limit established for casual collection would require a permit for collection.

Comment: Development of online certification instructional program. One respondent expressed the view that it would be beneficial for the Department to develop an online instructional and/or certification program providing guidance on collection of paleontological resources and responsible uses of the land and its resources.

Response: The establishment of an online instructional/certification program as described by the respondent has merit as a concept, but is beyond the scope of these regulations.

Comment: Reasonable amount criterion of not more than five specimens of any one kind is ambiguous and too restrictive. Respondents expressed the view that the reasonable amount criterion of not more than five specimens of any one kind is ambiguous and too restrictive. Respondents suggested that clarification should be provided concerning the meaning of "kind," which could be interpreted to correspond to taxonomic ranks ranging from class to species. One respondent expressed the view that for small specimens, the limit of five could be exceeded in a single hand sample. Respondents suggested that the numeric limit be raised to ten specimens of any one kind, and one respondent suggested that the term "kind" be replaced by "morphotype". One respondent suggested that the criterion of not more than five specimens of any one kind be eliminated.

Response: The Department has considered public comments on the proposed rule and has modified the reasonable amount definition to comprise a criterion of 100 pounds per

person per calendar year, not to exceed 25 pounds per person per day. The criterion of five specimens of any one kind has been eliminated.

Comment: Reasonable amount limits based on volume and/or size are too restrictive. Respondents expressed the view that reasonable amount limits per calendar year of 25 pounds, 1-gallon container or less, and/or one hand-carried slab are overly restrictive. Respondents suggested that fossils at many collection sites are so abundant that collection would have little impact, and those fossils that are not collected are destroyed by weathering. One respondent expressed the view that many well-known collecting areas look untouched. One respondent suggested that higher collection limits are necessary for amateurs to perform paleontological reconnaissance collecting for academic paleontologists.

Response: The Act stipulates that the regulations must define reasonable amount with respect to casual collection. Although fossils may be very abundant at some collection sites, they may not be universally abundant at all collection locations. The Department has considered public comments on the proposed regulations and modified the reasonable amount definition to comprise a single criterion of 100 pounds per person per calendar year. Paleontological reconnaissance collecting as described constitutes research, is not considered casual collection, and requires a permit.

Comment: Reasonable amount limits should be raised. Respondents expressed the view that the weight limit of 25 pounds per calendar year be raised to 25 pounds per day or 100 pounds per day. Respondents suggested that annual weight limit be raised to 50 pounds or 100 pounds or 200 pounds per year. One respondent suggested that the 1 gallon by volume yearly limit be raised to 4 cubic feet. One respondent expressed the view that the hand-carried slab criterion be changed to a 100 pound weight limit per slab. One respondent expressed the view that clarification should be provided concerning whether the stated reasonable amount limits apply to individuals or families.

Response: The Department has considered public comments on the proposed rule and has modified the reasonable amount definition to comprise a criterion of 100 pounds per person per calendar year, not to exceed 25 pounds per person per day.

Comment: Reasonable amount that can be hand carried. Two respondents expressed the view that the criterion that a slab can be no larger than what

can be hand-carried by a single person is unfair because the allowed amount would depend on the size and/or strength of an individual, rather than a uniform limit applied to all individuals.

Response: The Department has considered public comments on the proposed rule and has modified the reasonable amount definition to comprise a criterion of 100 pounds per person per calendar year, not to exceed 25 pounds per day.

Comment: Reasonable amount limits and fossils enclosed in rock matrix.

Respondents suggested that clarification should be provided regarding whether or not rock matrix surrounding fossils is included in the limits, and suggested that destruction of fossils would result from collectors attempting to field-trim matrix from fossils to remain under limits.

Response: The reasonable amount limit would apply to the entire amount of material removed in a year, including fossils and any enclosing matrix. The Department expects that responsible collectors would strive to minimize collateral damage to specimens resulting from field-trimming. Discarded material would be considered as disturbed material in context of the negligible disturbance criterion.

Comment: Application of criteria for reasonable amount limits. Respondents expressed the view that reasonable amount limits reflecting volume and/or weight and/or numbers of specimens would be inconsistent and difficult to apply. Respondents expressed the view that clarification should be provided regarding which criterion would apply in cases where a collection could be characterized by more than one criterion. One respondent suggested that the limit of five specimens of any one kind would in many cases be very easy to exceed in a collection that might fit in a 1-gallon container and/or in a slab weighing 25 pounds.

Response: The Department agrees that multiple criteria for reasonable amount may be inconsistent and difficult to apply. Consequently the regulations have been modified to specify a single reasonable amount of 100 pounds by weight per person per calendar year, not to exceed 25 pounds per person per day.

Comment: Tracking annual reasonable amount collection limits. Two respondents suggested that clarification should be provided concerning how annual reasonable amount collection limits would be tracked.

Response: The Act does not require casual collecting to be tracked. However, in establishing a reasonable amount criterion for casual collection as

stipulated by the Act, the Department expects that such reasonable amounts would not be exceeded by responsible members of the casual collecting public. The Department would rely largely on the ethics of an informed and law-abiding collecting public, who are aware of limits on casual collecting established in regulation and elect to legally collect within such limits. Documented collection of materials exceeding the reasonable amount without a permit could result in enforcement and penalty.

Comment: Reasonable amount limits applied to individual localities. One respondent expressed the view that reasonable amount limits by weight, volume, and/or number of specimens be applied to individual collecting localities, in order to facilitate collection at more than one locality. The respondent also suggested that distance and/or separation criteria could be applied to further define distinct collecting localities.

Response: Reasonable amount limits refer to absolute amounts, and are independent of number of collecting localities. Because number of collecting localities is not part of the definition of reasonable amount, there is no need to establish criteria to distinguish collection localities.

Comment: Authorized Officer modification of reasonable amount limits or collection times. Respondents expressed the view that an Authorized Officer should not be able to modify reasonable amounts or establish time periods for collection, because such decisions may be arbitrary and create precedents that are difficult to change. One respondent suggested that clarification should be provided concerning whether or not an Authorized Officer could increase limits above those specified for reasonable amounts if conditions allowed such collection.

Response: The Department agrees that reasonable amounts established in regulation should not be modified on a case-by-case basis, and has removed reference to the Authorized Officer in the definition of reasonable amount.

Comment: Proposed new term and definition—reconnaissance collecting. One respondent expressed the view that the term “reconnaissance collecting” be introduced and defined as exploratory collecting by amateurs, casual collectors, and/or academic researchers without a permit for the purpose of determining whether or not an area merits future more comprehensive collection under permit. The respondent suggested that such reconnaissance collection be limited to hand tools, that

disturbed surface areas not exceed 2 square meters, that excavations deeper than ½ meter on slopes less than 45 degrees must be back-filled, and that such collection would be performed by three or fewer individuals working at a location for 2 or fewer consecutive days.

Response: The activity that the respondent has described as reconnaissance collecting is considered collection for the purpose of research and not for personal use, and consequently requires a permit. The described activity constitutes research and does not merit creation or definition of a new term.

Section 291.6 Confidentiality of Information—General

Paragraph 291.6(a) implements the confidentiality provision contained at 16 U.S.C. 470aaa–8. This provision constitutes a statutory exemption from the disclosure requirements of 5 U.S.C. 552 (Freedom of Information Act) and other laws. For example, information about the nature and specific location of paleontological resources on National Forest System lands in an inventory document, scientific report, repository records, National Environmental Policy Act documents, or interpretive information, or information contained in existing Agency documents and records such as prior permits, may be withheld from disclosure or release to non-Agency personnel, unless the Authorized Officer determines in writing that disclosure would (1) further the purposes of the Act and these final regulations, (2) not create risk of harm to or theft or destruction of the resource or the site containing the resource, and (3) be in accordance with other applicable laws. This section would not limit the Forest Service’s authority to release information concerning the general location of paleontological resources.

Paragraph 291.6(b) clarifies that certain sharing of information concerning the nature and specific location of a paleontological resource does not constitute a disclosure or a release of that information. The Forest Service may wish to share information with certain non-Agency personnel for scientific, educational, or resource management purposes, without waiving the statutory exemption from disclosure provided by the Act. In certain situations, the Authorized Officer may share this information only with recipients who sign a confidentiality agreement in which the recipient agrees not to share the information with anyone else.

Section 291.6—Response to Comments

Comment: Conflict of confidentiality of information with freedom of speech. Respondents expressed the view that confidentiality provisions regarding the nature and specific location of a paleontological resource conflict with the constitutional right to freedom of speech and are contrary to Congressional goals and Presidential mandates concerning open availability of data obtained during federally funded research.

Response: The requirement in both the Act and these regulations for confidentiality of specific locations balances open communication about paleontological resources on National Forest System lands, and potential risks to such resources if specific locations are publicly disclosed. Provisions of the Act and these regulations regarding confidentiality of specific location information do not infringe on constitutional rights to freedom of speech. Rather, the Act and regulations require that confidentiality with regard to specific location information be maintained by individuals who choose to solicit and receive a permit from the Department to collect paleontological resources. Constitutional rights are subject to reasonable time, place, and manner restrictions; moreover, individuals are free to enter into agreements that constrain such rights if they choose to do so. Similar to constitutional rights, Congressional and Presidential policies concerning open availability of data obtained during federally funded research are also subject to reasonable time, place, and manner restrictions. For example, personally identifiable information obtained during the course of research is generally considered confidential and not subject to open disclosure. The appropriate level of specificity of location information that would be considered confidential would depend on the context of the occurrence, and the Department does not expect such restrictions to adversely impact communication of significant paleontological research information.

Comment: Appropriateness of confidentiality of specific location for certain paleontological resources. Respondents suggested that confidentiality provisions regarding the nature and specific location of a paleontological resource are too restrictive and not warranted by the nature of certain paleontological resources. Respondents suggested that requiring confidentiality of specific locations of rare paleontological resources, such as most vertebrate

fossils, may be merited. In contrast, most plant and invertebrate paleontological resources are common, abundant, and their locations are seldom threatened by over collection. Consequently, respondents suggested that the requirement for confidentiality of specific location should not be the default condition, but rather should be discretionary based on the sensitivity of the paleontological resource in question.

Response: The regulations are consistent with the Act which specifies confidentiality of specific location information for paleontological resources, and does not distinguish among vertebrate, invertebrate, plant, common, abundant, uncommon, and/or rare paleontological resources. In addition, the regulations and the Act specify certain conditions under which specific location information may be disclosed. The appropriate level of specificity of location information that could be disclosed would depend on the context of the occurrence.

Comment: Impedance of scientific research by confidentiality of information. Respondents expressed the view that confidentiality provisions regarding the nature and specific location of a paleontological resource will impede unrestricted communication of critical scientific data which is necessary to the practices of scientific verification and reproducibility. Respondents suggested that confidentiality of specific location data would prevent publication of scientific research in professional journals that require publication of locality information, would limit the utility of online paleontological research databases such as the Paleobiology Database, NEOTOMA, and EarthCube programs, and would prevent researchers from freely discussing research results with their colleagues. One respondent suggested that scientific publication of specific location information be exempt from the requirement for confidentiality.

Response: The regulations make allowance for the release of location information to qualified researchers with legitimate research needs. The appropriate level of specificity of location information that would be considered confidential and not subject to release for publication in professional journals and/or online paleontological research databases would depend on the context of the occurrence. The Department does not expect such restrictions to adversely impact communication of significant paleontological research information. Rather, the Department considers that the demonstration of legitimate research

needs for such information may foster increased communication among researchers and between researchers and the Department. A survey of the publication guidelines of professional research journals that are dedicated to, and/or regularly contain paleontological research content indicates that most journals do not require publication of specific location information. Those journals with stated requirements for publication of location information allow exemptions for protection of locations which may be placed at risk from such publication. Online paleontological databases exhibit a wide range in the specificity of location information that is recorded. The open and unrestricted availability of such specific location information published online highlights the need for the Department to control access to such information concerning sensitive locations on National Forest System lands. The Act does not provide allowance for a blanket exemption from the confidentiality requirement in the case of scientific publication of specific location information. On a case-by-case basis, the need for such publication may be considered in any decision by the Department whether or not to release such information, and/or the appropriate level of specificity of such location information that may be released.

Comment: Impracticality of written confidentiality agreements which can delay research publication. Respondents expressed the view that requiring written agreements from recipients of confidential information to maintain confidentiality of that information is burdensome, impractical, will impede informal and spontaneous verbal discussion and communication of scientific information between peer researchers, and may have a chilling effect on routine research based on collections containing specimens obtained from NFS lands. Respondents suggest that such restriction of open scientific communication may delay publication of research results. One respondent suggested that the requirement of written confidentiality agreement from recipients of confidential information conflicts with requirements of the Paperwork Reduction Act.

Response: The Department agrees that a decision to release specific location information, in accordance with provisions of the Act and the regulations that would allow such disclosure, should not universally require the recipient of such information to sign a written confidentiality agreement. However,

certain circumstances may merit such written agreement prior to release of confidential specific location information. The final regulatory language has been modified to indicate that a written confidentiality agreement may be required by the Authorized Officer.

Comment: Confidentiality and data management. One respondent expressed the view that specific location data must remain confidential, and that researchers, repository institutions, and their curatorial staff must demonstrate professional expertise in the management of confidential data in order to be party to a confidentiality agreement and/or be considered an approved repository.

Response: The Department agrees that parties in possession of collections for which specific location information is considered confidential should demonstrate professional expertise in the management of confidential data. Demonstration of professional expertise in this area would be addressed in a repository agreement and/or permit.

Comment: Repository professional staff and confidentiality agreements. One respondent expressed the view that professional staff members of a repository institution should not be individually required to sign confidentiality agreements.

Response: The regulations do not require that staff members of repository institutions must individually sign a confidentiality agreement. Rather, it is the responsibility of a repository to implement appropriate policies and procedures to ensure that confidentiality of specific location information is maintained as appropriate.

Comment: Confidentiality agreement process. Respondents expressed the view that clarification should be provided concerning who in the Department would authorize sharing of information in a confidentiality agreement, and whether the agreement process would be lengthy and impede scientific research.

Response: Particulars concerning the release of confidential specific location information would be addressed in a permit and/or repository agreement signed by the Authorized Officer. The Department considers that a party requesting the release of confidential specific location information would be expected to provide documentation of need sufficient to justify release of such information. The Department expects that the Authorized Officer will respond to requests for release of confidential specific location information in a timely manner.

Comment: Administration of confidentiality agreement. One respondent suggested that clarification should be provided regarding whether Agency personnel or repository personnel would administer a confidentiality agreement, and whether each request to a repository for confidential information must be referred to the Agency. The respondent also suggested that a sample confidentiality agreement be provided for review.

Response: The Department considers that the administration of a confidentiality requirement would be a shared responsibility of the parties in a repository agreement, since such parties would each have access to the subject information. A confidentiality and/or repository agreement would specify whether requests for confidential information would be referred to the Agency or repository staff. It is not appropriate to provide a sample confidentiality agreement in the body of the regulations. However, a generic agreement concerning nondisclosure of sensitive but unclassified information that may be referenced exists as Forest Service form FS-6600-5 (Rev. 12/2006).

Comment: Unintended consequence of not releasing specific location information. One respondent expressed the view that confidentiality requirements may result in repository institutions being reluctant to release specific locality information to professionals performing background searches related to site assessment for proposed ground disturbing projects. Such withholding of specific location information might result in unintended adverse impacts to paleontological locations during subsequent permitted site disturbance activity, because their locations were unable to be documented.

Response: Circumstances under which a repository might release confidential specific location information would be addressed in a repository agreement. Such information would be expected to be released to qualified professionals with a demonstrated need for such information.

Comment: Loss of location information. Respondents suggest that unrestricted publication of location information would ensure that locations of paleontological sites will not be lost. Respondents expressed the view that confidential location data which is maintained only in Department records may become inaccessible or lost and unavailable to future researchers.

Response: Unrestricted publication of specific location information would not

protect sensitive locations, which could be placed at risk by such publication. The Department considers that specific location information on file is secure, protected by such mechanisms as Agency records retention policies, and not subject to loss. Such information would generally be accessible to qualified professionals who demonstrate need for the information.

Comment: Specific location data. One respondent suggested that clarification should be provided regarding the level of specificity of location data that is considered confidential.

Response: The level of specificity of location information that would be considered confidential would in most circumstances reflect the context of the occurrence, and would be decided on a case by case basis. Coordinates obtained from Global Positioning System (GPS) devices, or from other sources with a comparable level of accuracy would generally be considered too specific for general release and would remain confidential.

Comment: Archaeological Resources Preservation Act (ARPA) and confidentiality. One respondent suggested that the confidentiality requirements in the proposed rule appeared to be based on the confidentiality provisions in ARPA, and that the ARPA template was designed for cultural resources and is not appropriate for paleontological resources.

Response: Confidentiality of specific location information protects resources at specific locations, whether such resources are paleontological, archeological, or other resources. A requirement for confidentiality of specific location information reflects a common goal of resource protection. Consequently, observed parallels in regulatory requirements providing for such confidentiality in these regulations and ARPA would be expected and are appropriate.

Comment: Exemptions from confidentiality. One respondent expressed the view that case-by-case determinations for exemptions of the confidentiality requirement are not specified in the Act.

Response: The Act at 16 U.S.C. 470aaa-8 and these regulations at section 291.6(a) specify criteria representing case-by-case circumstances that an Authorized Officer may consider prior to making a decision concerning release of protected information.

Comment: Confidentiality requires closure of Federal monuments and parks. One respondent questioned whether the requirement for confidentiality of specific location

information would require closure of Federal monuments and parks that have a paleontological focus.

Response: Confidentiality provisions would not be considered to apply to sites and areas whose locations are a matter of common public knowledge. Moreover, monuments and parks that have been established in specific recognition of their paleontological resources generally have staff resources and protective policies in place to ensure that such resources are not at risk related to their high public profile.

Section 291.7 Public Awareness and Education

Section 291.7 restates the provision in 16 U.S.C. 470aaa–2 for establishing a public awareness and education program about the significance of paleontological resources on National Forest System lands.

Section 291.8 Area Closures

Section 291.8 implements 16 U.S.C. 470aaa–3(e) providing for restricting access to or closing areas to the collection of paleontological resources in order to protect paleontological or other resources or to provide for public safety. Closure of an area to non-collecting activities would continue to be authorized under separate authorities where appropriate.

Section 291.8—Response to Comments

Comment: Criteria for area closure. Respondents suggested that criteria for area closures be listed, and expressed the view that without specific criteria, decisions to close areas may be arbitrary. One respondent expressed the view that reference to reasons for area closure that are unrelated to paleontological resources could lead to arbitrary closure decisions.

Response: Area closures would reflect considerations related to paleontological resources and/or factors unrelated to paleontological resources that would in most cases be context-specific. Because such factors would likely be unique for any given instance of area closure, it is not practical to provide a comprehensive list of criteria in these regulations. The Department considers that area closure decisions would not be arbitrary and would be justified on a case by case basis.

Comment: Closure of area to all or some activities. One respondent expressed the view that clarification should be provided concerning whether area closures would pertain to all activities, or whether permitted collection may be allowed in closed areas.

Response: Activities that may be allowed in closed areas would depend on the reason for the closure, which may be unrelated to paleontological resources. Consequently, permitted collection may or may not be allowed in an area closed to casual collection.

Comment: Public involvement in closure decisions. Respondents expressed the view that the Act stipulates that plans for paleontological resource management emphasize, where possible, collaborative efforts with non-Federal partners, the scientific community, and the general public. Respondents suggest that in accordance with this part of the Act, the Authorized Officer should consult with professional paleontologists and casual collectors who are familiar with the area in question, and provide public notice of intent to close, before closing an area for the purpose of protecting paleontological resources.

Response: Area closures are generally subject to National Environmental Policy Act (NEPA) procedures, including public notice of the proposed action, during which members of the public would be notified and public comments on the proposed action would be solicited.

Comment: Paleontological resource protection through National Park or Landmark designation. One respondent suggested that area closures should not be used to protect areas where casual collecting poses a risk to important paleontological resources. Rather, such areas should be protected as National Parks or Landmarks.

Response: The Department considers an area closure appropriate to protect resources to which the closure applies. National Park and/or Landmark designation is a lengthy process, during which resources at risk might be lost. Area closure is a more timely and focused response to protect resources at risk.

Section 291.9 Determination of Paleontological Resources

Section 291.9 only applies to National Forest System lands. Because of the Forest Service's multiple use mandates, there may be situations where a determination of what is or is not a paleontological resource would be necessary to avoid resource or land-use conflicts such as under the 1897 Organic Act or the Multiple Use Sustained Yield Act.

Section 291.9(a) states that all paleontological resources from National Forest System lands are to be managed, protected, and preserved under these final regulations, unless a determination

is made that they are not paleontological resources in accordance with § 291.9(b).

Sections 291.9(b) and 291.9(c) provides the Authorized Officer with a process to determine whether certain fossils should or should not be managed as paleontological resources as defined under the Act or these final regulations. Not all fossils are paleontological resources, as explained earlier in this preamble discussion of the term “fossil” as defined in § 291.5 of these final regulations. This determination would be based on scientific principles and methods, would be documented in writing, be prepared by a paleontologist with appropriate qualifications, and would provide the necessary framework to adhere to the savings provisions at 16 U.S.C. 470aaa–10 while satisfying the mandate at 16 U.S.C. 470aaa–1 that requires management using scientific principles and expertise. Such determinations may change over time as new information comes to light about the fossil. Fossils associated with an archaeological resource as defined in the Archaeological Resources Protection Act or any cultural items as defined in the Native American Graves Protection and Repatriation Act are considered to be heritage resources and are not paleontological resources.

Section 291.9(d) affirms that mineral resources on National Forest System lands, such as coal, oil, natural gas, and other economic minerals which are subject to the existing mining and mineral laws, are not paleontological resources. Petrified wood as defined at 30 U.S.C. 611 means “agatized, opalized, petrified, or silicified wood or any material formed by the replacement of wood by silica or other matter,” and is a mineral material. However, in accordance with § 291.9(a), the Authorized Officer may determine that an occurrence of petrified wood is a paleontological resource and should be protected and preserved accordingly. Vertebrate fossils, including microvertebrate fossils, are always considered paleontological resources. Geological units, including, but not limited to, limestones, diatomite, and chalk beds that are intrinsically composed of fossil remains, but may be considered to be mineral materials or fossil soils, are not paleontological resources under the Act or these final regulations.

Section 291.9—Response to Comments

Comment: Purpose and context of determinations. One respondent suggested that clarification should be provided regarding the purpose of making paleontological resource determinations, and questioned whether

such determinations would be made in only specific circumstances, or whether making such determinations would be a default procedure in paleontological resource management.

Response: Fossils on National Forest System lands are considered to be paleontological resources unless they are excluded in accordance with the Savings Provisions of the Act, excluded by listing in paragraph (d) of the section, or determined not to be paleontological resources in accordance with the procedures set forth in this section. Determinations generally would be performed only in context-specific circumstances where it may be necessary to clarify whether certain fossils are paleontological resources.

Comment: Paleontological resource exclusions. One respondent suggested that items listed in paragraph (d) of the section that are not considered paleontological resources are inconsistent with the definition of paleontological resources in § 291.5 and a definition in § 291.11(c).

Response: Paleontological resources are defined in the Act, and the definition of paleontological resources in § 291.5 of these regulations restates the definition of the Act. Section 291.11(c) of these regulations does not contain a definition of paleontological resources. Former item 3 of the referenced paragraph (d) of the section which referred to microfossils has been removed as it may have been considered inconsistent with the definition of paleontological resources. The remaining items in paragraph (d) have been renumbered to reflect the removal. Reference to paleosols in paragraph (d) has also been removed to provide additional clarification.

Comment: Paleontological resource exclusions. One respondent suggested that microbialites, including stromatolites, and non-vertebrate trace fossils should not be considered paleontological resources and should, therefore, be included with the list of items presented in paragraph (d) of the section.

Response: The definition of paleontological resources in the Act includes fossilized traces and imprints of organisms and does not differentiate between vertebrate and non-vertebrate traces and imprints. Consequently, invertebrate traces, stromatolites, and microbialites are paleontological resources.

Comment: Procedure and timeline for determinations. Respondents suggested that clarification should be provided regarding the procedures to be used and the time frame for making

paleontological resource determinations.

Response: The Department considers that the procedures for making determinations as set forth in this section are sufficiently detailed and clear, and respondents did not specify particular aspects of the stated procedures that might be considered unclear. Requests for determinations would be processed in a timely manner. The need for determinations would reflect case-specific considerations, and time frames for making determinations may reflect the complexity of such considerations.

Comment: Authorized Officer qualifications. Two respondents expressed the view that the Authorized Officer may not have sufficient paleontology qualifications to make paleontological resource determinations using scientific principles and expertise.

Response: From an administrative and organizational perspective, an Authorized Officer cannot be expected to have specialized expertise in every subject matter area in which they may be required to exercise decision-making authority. These regulations address this issue by specifying that a written recommendation for determination would be prepared by a paleontologist with expertise in the group of fossils in question, that such written recommendation would be reviewed by an Agency paleontologist, and that the Authorized Officer would consider the resulting recommendation of the Agency paleontologist in making a determination.

Comment: Paleontological subject matter experts: One respondent suggested that clarification should be provided regarding where the Authorized Officer would obtain paleontology subject matter experts to provide recommendations for paleontological resource determinations. Respondents expressed the view that the Department lacks an adequate number of paleontology specialists, possessing sufficient breadth of subject matter expertise, to effectively review proposed determinations and develop written recommendations for determination of paleontological resources as may be required.

Response: Paleontological subject matter experts are affiliated with a number of repository institutions with which the Forest Service maintains partnership agreements. Additional subject matter experts may be identified by searching recent paleontological publications in professional journals. Agency paleontologists advising the Authorized Officer making paleontological resource determinations

are expected to have sufficient academic credentials to perform technical review of recommendations by subject matter experts and to present informed professional evaluations of such recommendations.

Comment: Disposition of fossils pending and after determination. In the case of casually collected fossils which may be subject to paleontological resource determination, one respondent suggested that clarification should be provided regarding the disposition of the fossils pending the determination, and specifically questioned whether the collector could keep the fossil until the determination was made. Another respondent expressed the view that clarification should be provided concerning how a fossil would be returned to a collector after a determination, and if a collector could request return of an “uncommon” fossil if it were not actively being used in research.

Response: The disposition of casually collected paleontological resources pending a determination would be a matter of discussion between the collector and the Authorized Officer. If specimens are held by the Agency pending a determination, written acknowledgment of the Agency’s possession of the specimens would be provided to the collector. Specimens determined to be common invertebrate and plant paleontological resources that were collected in accordance with conditions established for casual collection would generally be returned to a collector in the same manner as they were received by the Agency. Specimens that have been determined not to be common invertebrate and plant paleontological resources and/or that are found not to have been collected in accordance with conditions established for casual collection would not be returned to the collector.

Comment: Microfossils and vertebrate fossils: One respondent suggested that clarification be provided regarding the term “microfossils” as used with reference to vertebrate fossils, and suggested that using the term “microscopic vertebrate fossils” would provide such clarification.

Response: The reference to microfossils has been eliminated, so further clarification is unnecessary.

Section 291.10 Collecting

Section 291.10 restates 16 U.S.C. 470aaa–3(a)(1) and (2), which directs that a paleontological resource may only be collected from National Forest System lands in accordance with a permit issued by the Authorized Officer

under these final regulations, except for casual collecting.

Section 291.10—Response to Comments

Comment: Restrictions on collection and exclusive use. One respondent expressed the view that neither amateur nor scientific collection of paleontological resources conflict with the Forest Service mission, but these final regulations governing collection will result in collection and use of paleontological resources being limited to individuals with influence.

Response: The Department agrees that amateur and scientific paleontological resource collection do not conflict with the Forest Service mission. The provisions for casual collection in the Act and these regulations codify, for the first time, the ability of the public to collect common invertebrate and plant paleontological resources from National Forest System lands without a permit, providing certain conditions are met. The requirement for a permit for collection that is not considered casual does not promote exclusivity. Anyone can apply for a permit to collect paleontological resources if they meet the relevant requirements of the Act and this regulation.

Comment: Reference to “paleontological resource” should be plural. One respondent suggested that the phrase “a paleontological resource” should be in plural here to read: “Section 291.10 would restate Section 16 U.S.C. 470aaa–3(a)(1) and (2), which directs that paleontological resources may only be collected in accordance with a permit issued by the Authorized Officer under these proposed regulations, except for casual collecting.”

Response: The Department retains the existing singular form of the term “paleontological resource” because the purpose of the cited passage is to restate the Act, which employs the term in singular form. The Department also considers that in this case, there is no significant change in meaning related to use of the term in singular or plural form.

Section 291.11 Casual Collecting on National Forest System Lands

Section 291.11 restates 16 U.S.C. 470aaa–3(a)(2) that allows for casual collecting without a permit on certain National Forest System lands. Casual collecting, as defined in Section 291.5, is allowed on National Forest System lands where such collection is consistent with the laws governing the management of those lands and these final regulations. National Forest System lands would generally be

considered open to casual collection unless otherwise closed to such casual collection as described in § 291.12. Section 291.11(d) and (e) states that the Authorized Officer can use the process in § 291.9(c) to make a determination that certain invertebrate or plant fossils are not common, and therefore, cannot be casually collected and must be collected under a permit. Section 291.11(d) provides the Authorized Officer with the ability to protect invertebrate and plant fossils when they are not common.

Section 291.11(f) clarifies that it is the responsibility of the collecting public to ensure that areas in which they are proposing to casually collect common invertebrate or plant fossils have not been closed to casual collection for reasons as described in § 291.12. Information regarding area closures would generally be available from the local District Office. Section 291.11(g) clarifies that paleontological resources collected from National Forest System lands in accordance with the casual collection provisions of § 291.11 cannot be sold.

Section 291.11—Response to Comments

Comment: Research does not constitute casual collection. Respondents expressed the view that researchers often work using personal or public funds and they should not be subject to the time-consuming and unnecessary bureaucracy of having to obtain permits for collection of paleontological resources.

Response: Activities that do not meet the criteria applied to casual collection require a permit. Specimens obtained by casual collection must be for non-commercial, personal use. Research is not considered a personal use. Rather, research, based on the common definition of the term in the context of these regulations, is considered to be a structured activity undertaken by qualified individuals with the intent to obtain and disseminate information via publication in a peer-reviewed professional scientific journal or equivalent venue, which increases the body of knowledge available to a scientific community. Moreover, requirement of an authorization to perform research is consistent with existing Special Uses authorities, in which research and survey projects are generically considered to be activities that require a permit.

Comment: Research reconnaissance collection: Respondents expressed the view that collection of small quantities of common and abundant invertebrate and plant fossils for research, in accordance with conditions and limits

applied to casual collection, should not require a permit for collection. Respondents suggested that the term “reconnaissance collection” be applied to such limited research collection. Respondents further expressed the view that such reconnaissance collection would normally occur in context of exploratory field surveys for the purpose of determining areas appropriate for subsequent comprehensive collection, which would then be subject to the requirement of a permit for research collection. One respondent suggested that a streamlined permit be developed for reconnaissance collection of limited quantities of specimens entailing only minor surface disturbance.

Response: Reconnaissance collection as described by respondents is a professional scientific research activity, and professional scientific research requires authorization. Permit application requirements including description of the scope of the proposed activity and subsequent permit stipulations reflect the nature and scale of the proposed activity. Consequently, because project proposals reflect a wide range of complexity, and reconnaissance collection itself may vary in scope, there is no practical benefit to creating a separate permit for reconnaissance collection.

Comment: Research collection subject to more regulation than casual collection. Respondents expressed the view that research collection is adversely singled out for permitting and associated higher extent of regulation than casual collection, thereby subjecting researchers to a greater regulatory burden than the general public. Respondents expressed the view that the increased regulation imposed on professional paleontologists reflects lack of trust and respect for researchers relative to amateurs.

Response: The Act stipulates that casual collection without a permit is limited to non-commercial personal use, and that a permit is required for the collection of paleontological resources that is not in accordance with casual collection provisions. Research is not considered a personal use. Rather, research is considered to be a structured activity undertaken by qualified individuals with the intent to obtain and disseminate information, via publication in a peer-reviewed professional scientific journal or equivalent venue, which increases the body of knowledge available to a scientific community. Moreover, requirement of an authorization to perform research is consistent with existing Special Uses authorities, in

which research and survey projects are generically considered to be activities which require a permit. The requirement for a permit to collect paleontological resources for research purposes does not reflect lack of trust or respect for researchers, but rather is in accordance with provisions of the Act.

Comment: Elimination of permit requirement for collection of common invertebrate and plant fossils. One respondent suggested that the requirement for a permit to collect paleontological resources be restricted to vertebrate fossils and uncommon invertebrate and plant fossils.

Response: Casual collection of common invertebrate and plant paleontological resources without a permit is allowed, providing such collection conforms with all requirements applicable to casual collection.

Comment: Casual collection for educational purposes. Respondents expressed the view that clarification should be provided regarding whether casual collection without a permit would be allowed for educational purposes, such as developing teaching collections and collecting by participants on educational class field trips. One respondent suggested that clarification should be provided regarding whether the presence of a professional paleontologist leading an academic class field trip would trigger the requirement to obtain a permit to collect.

Response: Educational purposes may be considered related to personal education and public education. Collection for personal educational use would be allowed under casual collection, provided all requirements for casual collection are met. Collection for public educational use, such as use in dedicated earth sciences and/or paleontology teaching collections formally maintained by an academic institution, would not be considered a personal use and would require a permit. The qualifications of a field trip leader would not by themselves trigger the requirement for a permit to collect during an academic class field trip, provided collections by individuals are for personal use, do not exceed individual reasonable amount limits and the collateral impacts to associated resources that may be caused by the group do not exceed negligible disturbance criteria established for casual collection. However, the nature of the trip, including number of participants and potential collateral impacts to associated resources, could trigger the need for a special use permit pertaining to group uses unrelated to

paleontological collection. Questions pertaining to group uses unrelated to paleontological collection should be directed to special uses staff at the local Forest Service Field Office in which a field trip is planned.

Comment: Research on casually collected fossils. One respondent suggested that clarification be provided concerning whether research could be performed by amateurs on casually collected specimens, and whether research could be performed by researchers on specimens collected during preliminary field surveys in advance of obtaining a permit.

Response: Research, in the context of these regulations, is considered to be a structured activity undertaken by qualified individuals with the intent to obtain and disseminate information, via scientific publication, which increases the body of knowledge available to a scientific community. If, at the time of collection, an amateur intended to perform research as described above on collected specimens, such collection must be made under permit. Specimens collected during preliminary field surveys, as described by the respondent, are collected in the context of intent to perform research and would require a permit for collection.

Comment: Casual collection in significant locations: One respondent suggested that the significant scientific or historic context of certain paleontological resources and/or locations may warrant collection by permit only, even if the paleontological resources may otherwise be considered common and abundant.

Response: The Authorized Officer has the ability to consider such location-specific factors in formulating decisions pertaining to closing an area to casual collection and requiring a permit for collection of scientifically or historically significant paleontological resources that might otherwise be considered common and abundant.

Comment: Disposition of casually collected paleontological resources. Respondents suggested that clarification should be provided regarding when paleontological resources are considered Federal property, particularly in the context of casual collection. Respondents also suggested that clarification be provided regarding whether casually collected paleontological resources may be donated to a repository. Respondents also expressed the view that clarification should be provided concerning whether the ownership title to collected specimens is transferred if specimens are donated to a repository, and how should title to specimens be

documented. One respondent suggested that owners of casually collected fossils be allowed to return unwanted specimens to the Forest Service so that a suitable repository may be identified.

Response: The Department considers that Federal ownership of paleontological resources is effectively severed if those resources were legally collected in accordance with provisions for casual collection. Specimens that were casually collected with the intent of personal use may be donated to a repository at a later time; however, collection with the intent to donate to a repository would not constitute casual collection and would require a permit. The Department does not expect this to be a commonplace scenario. The title of specimens that are legally collected in accordance with casual collection requirements is a matter to be decided by the parties to a transfer of ownership. It is the responsibility of the donating party to demonstrate to the receiving party that specimens were collected legally. Owners of casually collected specimens may attempt to return such specimens to the Forest Service, but the Forest Service is under no obligation to accept them.

Comment: Monitoring of casual collection. One respondent suggested that clarification should be provided regarding how the Department can effectively monitor casual collection, relative to more stringent regulatory requirements placed on professional permit holders.

Response: The Act does not stipulate a requirement for formal monitoring of casual collecting that is legally performed in accordance with the stipulated requirements. Monitoring of casual collection areas may be specified in a National Forest and/or National Grassland management plan or other management direction. The level of such monitoring would reflect management direction in that regard.

Comment: Common invertebrate and plant paleontological resources. Respondents expressed the view that more detailed information and publicly available guidance are needed concerning the criteria for recognition, and procedures for collection of common invertebrate and plant fossils.

Response: The Department considers that the Act and these regulations provide sufficient procedural direction regarding circumstances under which common invertebrate and plant paleontological resources may be collected in accordance with casual collection, or would require a permit for collection. Criteria for the recognition of invertebrate and plant paleontological resources that may be considered

common would reflect factors including taxonomic identification and variables specific to local occurrences. The diversity of taxa and attributes related to their local occurrence that would be considered are not practical to list in regulation.

Comment: Determination of common invertebrate and plant paleontological resources. Respondents expressed the view that the Authorized Officer should be required to have input from qualified paleontologists prior to making determinations of whether certain fossils do or do not meet the definition of common invertebrate and plant paleontological resources. One respondent further suggested that prior to making a determination, the Authorized Officer be required to consult with at least two academic paleontologists and local amateur paleontologists as may be available and having experience with the fossils in question. One respondent also suggested that reference to “Using scientific principles and expertise . . .” be changed to “Using sound scientific evaluation and expertise. . .”

Response: The regulations specify that the Authorized Officer, prior to making a determination, would receive a recommendation prepared by a paleontologist with appropriate subject matter expertise and that such recommendation would be reviewed by an Agency paleontologist. An Agency paleontologist could recommend further consultation with additional subject matter experts as may be considered appropriate. The language cited by one respondent referring to “scientific principles and expertise” restates the language of the Act and, therefore, will be retained without change.

Comment: Disposition of significant fossils after collection. One respondent expressed the view that clarification should be provided regarding how fossils that might be casually collected and subsequently determined not to be common invertebrate or plant paleontological resources would be returned to the public domain.

Response: If an uncommon invertebrate or plant paleontological resource was inadvertently collected during casual collection, the location from which the resource was collected should be identified and the specimen(s) should be returned to a Forest Service office for proper disposition.

Comment: Casual collection of common vertebrate fossils. One respondent suggested that an Authorized Officer be able to determine that certain vertebrate fossils from particular locations are common,

unnecessary for research, and may be subject to casual collection.

Response: The Act specifies that casual collection applies to common invertebrate and plant paleontological resources, and does not provide that an Authorized Officer may determine that certain vertebrate paleontological resources may be subject to casual collection.

Comment: Unintentional collection of vertebrate fossils during casual collection. One respondent suggested the addition of language to specify that unintentional collection of vertebrate fossils which may be intermingled with casually collected common invertebrate and plant fossils is not considered a violation that such collected vertebrate fossils cannot be sold, and if determined to be rare, they must be deposited in a designated repository.

Response: Department law enforcement specialists may employ discretion in enforcement sufficient to address circumstances of inadvertent casual collection of specimens which may be uncommon, not invertebrate, and/or not plant paleontological resources. Other language changes suggested by the respondent are already addressed in the regulations.

Comment: Responsibility of collecting public. Respondents expressed the view that it is not fair for the Department to place the burden of responsibility on the public to have knowledge of whether areas may be open or closed to casual collection. Respondents suggested that it is the Department’s responsibility to provide notice to the collecting public of areas that are closed to casual collection.

Response: The public is responsible for knowledge of regulations and local orders governing the use of National Forest System lands. It is responsibility of the Department to provide notice to the public of closed areas. Parties interested in casual collection of common invertebrate and plant paleontological resources from National Forest System lands are encouraged to contact the local administrative office for current information concerning potential access restrictions.

Section 291.12 National Forest System Lands Closed to Casual Collection

Section 291.12(a) and (b) clarifies that casual collecting is prohibited on National Forest System lands that are closed to casual collecting under these regulations, other statutes, Executive Orders, regulations, and land use plans. In addition, § 291.12(b) clarifies that NFS lands that were closed to casual collecting prior to the Act remain closed to casual collecting.

Section 291.12—Response to Comments

Comment: Closure of areas to casual collection. Respondents expressed the view that closure of areas to casual collection assumes that subject lands belong to the Forest Service and not to U.S. citizens, and that such closures would be in conflict with the right of the public to casually collect, as established in the Act.

Response: The Act stipulates that access to areas may be restricted or closed to the collection of paleontological resources for cause, in addition to establishing the ability to casually collect providing certain conditions are met.

Comment: Area closure decisions and public consultation. One respondent expressed the view that a decision by an Authorized Officer to close an area to casual collection should require input from qualified paleontologists and the local collecting community.

Response: Area closure decisions are generally subject to National Environmental Policy Act public notice requirements, during which scoping of the proposed decision is performed, and public input is solicited as appropriate.

Comment: Posting of areas closed to casual collection. One respondent expressed the view that area closures should be posted to formally give notice to public that they are not allowed to casually collect in the posted area.

Response: Areas closed to collection of paleontological resources may or may not be posted, depending on the sensitivity of resources whose specific locations may be considered confidential and which may be placed at risk by posting areas in which they occur.

Comment: Typographical error—statues/statutes. One respondent noted that the word “statues” as used in item (2) of this section should be corrected to “statutes”.

Response: The Department agrees that this is a typographical error and it has been corrected.

Section 291.13 Permits

Section 291.13(a) restates 16 U.S.C. 470aaa–3(b)(1) through (4) which are the criteria for issuing permits for the collection of paleontological resources from National Forest System lands.

Section 291.13(b) clarifies that issuance of a permit is within the discretion of the Authorized Officer.

At present, Forest Service permits for paleontological resource activities such as scientific and/or educational collecting and resource inventory surveys are issued as special use authorizations. Current paleontological

resource permitting practices do not preclude development of paleontology-specific use permits as authorized under the Act which would be issued and administered by the Forest Service Minerals and Geology Management program apart from the special uses program. Development of such a paleontology-specific permit to authorize collection of paleontological resources is associated with the proposed information collection which is described in this preamble in the section titled *Controlling Paperwork Burdens on the Public*.

Section 291.13—Response to Comments

Comment: Burdensome and overly restrictive requirements for permits to collect paleontological resources. Respondents expressed the view that permitting requirements and permitting are time-consuming, too restrictive, and comprise an unnecessary and unfunded bureaucracy. Respondents suggested that information required to obtain a permit is excessive, and that required information is irrelevant and often impossible to provide, particularly for locations of potential excavation areas which often cannot be specified in advance of actually performing permitted field work. Respondents expressed the view that the permitting process, including management and reporting requirements, is costly, cannot be administered in a timely manner, and provides no concomitant benefit to science. One respondent suggested that the permitting process limits the free and open exchange of scientific information. Another respondent expressed the view that the permit process be streamlined and simplified.

Response: The Act stipulates that a permit is required to collect paleontological resources when such collection does not conform to the conditions established for casual collection. Permits, by their nature, are restrictive instruments and establish operating standards to ensure that proposed collection of paleontological resources will not result in damage or loss of such resources both during and after the process of collection. Information requested from an applicant as part of a permit application conforms to Department standards and procedures concerning information collection, and is used to evaluate a proposal to collect and to evaluate the qualifications of the applicant relative to their ability to perform the proposed collection without damage or loss of specimens. The Department has historically administered permits in a timely manner, and considers the permit process to be as streamlined and

simplified as practicable commensurate with the intent to ensure paleontological resource preservation, thereby providing direct benefit to science. Assertions by respondents concerning the costliness of permitting and limits on the free and open exchange of scientific information are conjectural and not substantiated.

Comment: Permits for collection of common invertebrate and plant paleontological resources. Respondents expressed the view that permits for the collection of common invertebrate, plant, and trace fossils should not be required. One respondent suggested that permits for the collection of common invertebrate and plant fossils would be too costly and would hinder research on such paleontological resources.

Response: A permit would be required for collection of common invertebrate and plant paleontological resources if such collection does not conform to conditions established for casual collection. The assertion by a respondent concerning the costliness of permitting and hindrance on research concerning common invertebrate and plant fossils is conjectural and not substantiated.

Comment: Requirements for a permit for amateur collectors collaborating with researchers to collect paleontological resources. One respondent suggested that serious amateur collectors who collaborate with researchers should not be required to obtain permits to collect paleontological resources.

Response: Any collection of paleontological resources that does not conform to the conditions established for casual collection requires a permit. If a collector is named as a field participant on a permit held by another party, a separate permit would not be required to collect in relation to the permitted project.

Comment: Timely permit decisions. One respondent suggested that the regulations should include language specifying that the Agency will implement decisions regarding permitting in a timely manner.

Response: The Forest Service intends to process permits in a timely manner.

Comment: Cost estimates should be provided by the applicant as part of a permit application. One respondent expressed the view that non-binding estimates of the permit applicant's costs related to a proposed action should be required as part of a permit application. The respondent suggested that many permit applicants do not fully appreciate the scope of real costs associated with collecting and subsequent curation of collections by repositories.

Response: The Department agrees that many permit applicants and permit holders do not fully appreciate the implications of their costs related to proposed projects involving collection of paleontological resources. However, it is beyond the scope of these regulations for the Forest Service to require the applicant to submit project cost estimates.

Comment: Specification of permitting for mitigation. One respondent suggested that the regulations should explicitly specify that permits are required for paleontological resource mitigation, in addition to research collection.

Response: Collection for mitigation purposes is clearly not a personal use, and so would not be considered casual collection and would require a permit in accordance with the regulations. Consequently, the addition of language to the regulations that would explicitly specify a permit requirement for mitigation collection is not necessary.

Comment: Mandatory permit issuance. One respondent expressed the view that the regulations state that permits must be issued to all applicants unless past actions preclude an applicant being qualified to hold a permit.

Response: The Department considers that permits are discretionary instruments, and that there is no requirement to issue a permit that has been applied for. However, it is expected that denial of a permit would be for cause.

Comment: Guidance regarding collection of common invertebrate and plant paleontological resources. One respondent expressed the view that more detailed information and guidance should be provided regarding the criteria and procedures for the collection of common invertebrate and plant paleontological resources.

Response: Common invertebrate and plant fossils may be casually collected or collected under permit, depending on the circumstances of collection. Information and guidance regarding whether casual collection is appropriate or whether a permit would be required are provided in the regulations. Procedures and requirements for obtaining a permit are discussed in the regulations, and additional information regarding permit forms and how to submit an application can be obtained from Forest Service paleontology program staff or from the local administrative unit office that would administer the permit. There are no formal procedural requirements for casual collection, apart from adherence to the stated conditions.

Comment: Permitted activities. One respondent suggested that the first sentence in the third paragraph of Section 291.13 as discussed in the Preamble, the phrase “. . . permits for paleontological resource activities such as collection and resource inventory surveys . . .” be amended to read “. . . permits for paleontological resource activities such as scientific and/or educational collecting and resource inventory surveys . . .”

Response: The Department agrees that the suggested language change provides clarification and has incorporated the change.

Comment: Permits should be administered by professionally trained paleontologists. One respondent expressed the view that paleontology permits should be administered by professionally trained paleontologists employed by the Department. Respondent further suggested that if permits are administered by the Minerals and Geology program area, that they be afforded the same consideration as permits issued for extractive uses.

Response: Authorizations and permits for paleontological resource use activities would generally be issued by local administrative units, under policy direction provided by Agency paleontologists. The Department considers that permits for paleontological resource use activities would be afforded similar consideration as authorizations for extractive uses.

Comment: Typographical error. One respondent suggested that the citation to the Act in section 291.13(a)(4) is incorrect. The respondent stated that the existing citation which refers to “16 U.S.C. 470aaa Sec. 6304(b)(4)” should be corrected to read “16 U.S.C. 470aaa–3(b)(4)”.

Response: The Department agrees that the citation is not accurate and has corrected the typographical error.

Comment: Prohibition on use of collected materials for commercial purposes. Respondents expressed the view that some repository institutions create traveling exhibits and/or other promotional media such as tour guides, calendars, and brochures to generate revenue, which could be considered a commercial purpose. Respondents questioned whether Federal specimens would be precluded from use in such exhibits and media. Respondents also questioned whether or not a repository institution housing Federal specimens would be precluded from employing such activities, and whether or not staff of institutions that employed such activities would be excluded from consideration for paleontological permits. One respondent suggested

deletion of the clause “. . . otherwise used for commercial purposes” from § 291.13(a)(5) in order to allow the revenue-generating activities described above.

Response: The Department considers that prohibitions on commercial uses would generally apply to sale of paleontological resources. The issue of not-for-profit institutions using revenues generated from traveling exhibits and/or other promotional media that utilize Federal specimens for purposes of supporting collections management would be addressed in a repository agreement. Staff of institutions that employed such activities would not be excluded from consideration for paleontological permits.

Section 291.14 Application Process

Section 291.14 sets forth the information that must be submitted by permit applicants to the Authorized Officer for the proposed collection of paleontological resources. The Forest Service may require additional information in order to support an application for a permit.

Section 291.14—Response to Comments

Comment: Information required in permit application should be optional. One respondent suggested that information required to be provided in a permit application be made optional, and expressed the view that determination of the need for a permit and required information to collect common invertebrate and plant paleontological resources for research purposes should be left to the discretion of the Authorized Officer.

Response: The Department considers that the information requested in a permit application is the minimum information necessary for staff specialists to evaluate a project proposal and provide a recommendation regarding permit issuance. Collection of paleontological resources for research purposes would require a permit, even if such resources could be considered common.

Comment: Each party listed on a permit application should include a resume. One respondent suggested that all parties listed on a permit application be required to submit a current resume as part of the permit application.

Response: The permit applicant is required to submit a current resume; the permit applicant is responsible for ensuring that all other parties listed on the permit are qualified as appropriate for participation in permitted activities.

Comment: Regional or State-wide paleontology permits. One respondent

suggested that consideration be given to issuance of Region- and/or State-wide paleontology permits to allow unanticipated collection of paleontological resources on an as-needed basis.

Response: The regulations do not preclude issuance of Region- and/or State-wide paleontology permits.

Comment: Responsibilities of permit applicant and repository institution are not distinguished. Respondents suggested that the requirements for a permit applicant to provide verification of a repository institution’s agreement to receive a paleontological collection, and an acknowledgment that costs of curation will be borne by the applicant and/or repository institution confuses the respective responsibilities of the permit applicant and the repository institution during the permit application process. One respondent expressed the view that only collected paleontological resources that result in scientific publication be required to be housed in an approved repository.

Response: The Department considers that it is the responsibility of a permit applicant to demonstrate that arrangements have been made with a repository which has agreed to accept materials collected under permit, and to demonstrate that arrangements have been made for financing associated costs of curation that do not obligate the Forest Service. These demonstrations by the permit applicant are necessary in advance of issuance of a permit in order to ensure that collected materials are appropriately repositored and not “orphaned” after collection. The Act stipulates that paleontological resources collected under a permit be deposited in a repository institution, and does not distinguish between such resources that result in scientific publication and those that do not.

Section 291.15 Application Qualifications and Eligibility

Section 291.15(a) clarifies what information is needed from an applicant to demonstrate, to the satisfaction of the Authorized Officer, that the applicant is qualified to carry out the proposed permitted activity. These qualifications are important to ensure that the collection would be carried out in a professional and responsible manner.

Section 291.15(b) clarifies that the information submitted by an applicant must demonstrate that the proposed activity is eligible for a permit, in accordance with 16 U.S.C. 470aaa–3(b)(2)–(4).

Section 291.15—Response to Comments

Comment: Permit requirements should refer to permit application rather than applicant. One respondent expressed the view that qualifications and eligibility requirements to obtain a paleontology permit should refer to the permit application rather than the permit applicant, in order to facilitate proposals by teams rather than individuals.

Response: A permit application would contain a project proposal and supporting materials provided by each permit applicant that demonstrate that the applicant(s) is/are qualified and eligible to obtain a permit. The Department considers that the suggestion to refer to the application rather than the applicant(s) is semantic rather than substantive, and that the existing statement of qualifications and eligibility requirements with respect to applicants does not discriminate against team proposals.

Comment: Requirement of a graduate degree in paleontology is too stringent. Respondents expressed the view that the requirement for a permit applicant to hold a graduate degree in paleontology or a related field is too stringent and discourages research and science. Respondents suggested that students in pursuit of a graduate degree in paleontology or related field be considered qualified to hold a permit. Respondents expressed the view that it would be impractical for graduate students to be listed on their academic advisors' permits because such advisors may have several students working in different field areas at the same time and could not provide direct field supervision to each student in each area. Respondents suggested that the requirement for a graduate degree in paleontology will prevent self-educated nonprofessional, avocational, and/or amateur paleontologists from furthering their knowledge in paleontology, and expressed the view that permits should be made accessible to non-professionals without graduate degrees.

Response: The specification of a graduate degree in paleontology or a related field is not the sole criterion that may be considered regarding an applicant's qualifications. The regulations explicitly specify an alternative criterion of training and/or experience commensurate to the nature and scope of the proposed activities. The rule language has been slightly modified to clarify that training and/or experience need only be commensurate to the nature and scope of the proposed project. The regulations do not specify that a graduate student must be listed on

an advisor's permit. Non-professional paleontologists without graduate degrees may be qualified to obtain a permit providing that they can demonstrate training and/or experience commensurate with the proposed activity.

Comment: Permit application by casual collectors. One respondent questioned whether or not casual (non-academic) collectors would be eligible apply for a permit to collect paleontological resources.

Response: Casual (non-academic) collectors may apply for a permit provided they meet eligibility requirements and can demonstrate training and/or experience commensurate with the proposed activity.

Comment: Requirement of paleontological expertise is too restrictive. Respondents expressed the view that requiring a permit applicant to demonstrate paleontological expertise, or requiring permitted paleontologists to be present during collection of paleontological resources, is too restrictive. Such requirements would make it difficult for geologists without paleontological expertise to perform field research that might require collection of paleontological specimens for the detailed characterization of geological strata.

Response: A permit applicant may possess paleontological expertise or be able to demonstrate training and/or experience commensurate with the nature of the proposed activity. Depending on the nature of the proposed activity, such training and/or experience may not require specialized paleontological expertise. The regulations do not require that a permitted paleontologist with specialized paleontological expertise be present during permitted activities.

Comment: Requirement for experience pertaining to field work logistics is not necessary. One respondent expressed the view that requiring an applicant to demonstrate experience in logistical aspects of performing paleontological field work is unnecessary. The respondent suggested that ensuring proper logistical preparation for field work should be the responsibility of the applicant, not the Forest Service, and that the applicant should only be required to demonstrate qualifications, and be held responsible for, actual field collection of specimens and associated information.

Response: An applicant is required to demonstrate experience in logistical aspects of field work commensurate with the nature of the project proposal. The rule language has been slightly

modified to clarify that experience need only be commensurate to the nature and scope of the proposed project. This requirement ensures that specimens will not be lost or damaged resulting from a permit holder's failure to successfully complete work in the field.

Comment: Transferability of qualifications. Respondents suggested that permit applicants who have successfully demonstrated the qualifications to be issued a permit in one administrative unit should also be considered to be qualified to perform similar activities in other administrative units.

Response: Projects may differ enough in nature and scope that qualifications demonstrated by an applicant for one project may not pertain to other projects proposed by the same applicant. Permits are generally administered by the local Forest Service office which manages the lands on which a proposed project is located. It is at the discretion of the permit-issuing office whether or not to accept an applicant's qualifications which have been demonstrated elsewhere for other projects.

Comment: Requirement of additional qualifications by the Authorized Officer may be arbitrary. Respondents expressed the view that the ability of an Authorized Officer to require that a permit applicant hold qualifications that are not listed in the regulations may result in arbitrary requirements being imposed and lead to non-uniform, inconsistent permitting criteria employed by the Forest Service. One respondent suggested that the ability of an Authorized Officer to require additional applicant qualifications be eliminated.

Response: The Department recognizes that decisions to issue a permit may reflect location- and/or context-specific circumstances that are unrelated to the paleontological resource in question or the paleontological qualifications of an applicant. A decision whether or not to issue a permit may reflect an applicant's qualifications in areas unrelated to paleontology that are pertinent to such case-specific circumstances as may apply. The language of the regulations has been slightly modified to indicate that additional qualifications as may be required would relate to context-specific factors associated with the proposed project.

Section 291.16 Terms and Conditions

Section 291.16(a), (b) and (c) restates 16 U.S.C. 470aaa-3 (c)(1) through (3) in specifying requirements for the issuance of a permit for the collection of paleontological resources. The permittee would acknowledge that paleontological

resources collected from National Forest System lands under a permit remain property of the United States; that the paleontological resources collected, along with associated records, would be preserved for the public in an approved repository to be made available for scientific research and public education; and that specific locality data would be kept confidential.

Section 291.16(d) through (r) establishes requirements to ensure that all permitted activities would comply with and further the purposes of the Act, these final regulations, any additional stipulations, and other Forest Service contract authorities and requirements.

Section 291.16(r) provides for the incorporation of additional permit stipulations, as may be appropriate, that were not otherwise listed in § 291.16(a) through (q). Examples of such additional stipulations would include, but not be limited to, reclamation plans and posting of reclamation bonds. The addition of permit terms, conditions, or stipulations requiring a reclamation plan or bond, or both, to ensure reclamation of surface disturbance associated with paleontological resource collections would be at the discretion of the Authorized Officer under these regulations, and such requirements would be based on conditions specific to the authorized activity.

Section 291.16—Response to Comments

Comment: A valid repository agreement should be part of the permitting process. Respondents expressed the view that an agreement by a repository to house collected specimens should be a requirement in decisions to issue a permit to collect paleontological resources.

Response: The Department agrees that a valid repository agreement should exist prior to issuing a permit to collect, and such requirement is stated in § 291.14(e) regarding the permit application and is re-stated in § 291.16(b) regarding permit terms and conditions.

Comment: Permit terms and conditions should apply to the permit holder, not to the repository institution. Respondents expressed the view that permit terms and conditions should apply only to the permit holder and not to the repository institution which has agreed to accept collected materials. Respondents suggested that because the repository is not a signatory to a permit, it should not be held responsible for compliance with terms and conditions as set forth in a permit.

Response: The Department agrees that permit terms and conditions apply only

to the permit holder and not the repository. The language referring to the repository with regard to collections maintenance costs has been slightly modified to clarify that the issue of curation-related funding is a matter that may be addressed by the permit holder and the repository in an agreement separate from the permit. However, it is ultimately the responsibility of the permit holder, at the time of permit issuance, to demonstrate that funding is available to support curation of the specimens that would be collected under permit.

Comment: Permit terms and conditions are too restrictive and limit the free exchange of scientific information. One respondent suggested that the terms and conditions of a permit are overly restrictive, and limit the free and open exchange of scientific information.

Response: The Department considers that the respondent's suggestion that the terms and conditions of a permit are overly restrictive and limit the free and open exchange of scientific information is conjectural and not substantiated. Permit terms and requirements are considered to be the minimum necessary to ensure that collected specimens are appropriately protected and preserved.

Comment: Limits on tool size and amounts of materials collected under a permit. Respondents questioned whether or not collections of paleontological resources made under permit would be subject to the same criteria as established for casual collection, particularly with respect to limits on size of collecting tools and limits on weight and/or volume of collected materials. One respondent expressed the view that the regulations place undue limits on the volume of materials collected under permit.

Response: Conditions established for casual collection would not apply to collection under permit. The nature of collection tools and amounts of collected materials would be context-specific and established in the permit.

Comment: Undue limits on exploration for new fossil-bearing localities under a permit. One respondent expressed the view that the regulations place undue limits on the ability to explore for new fossil-bearing localities under a permit.

Response: The regulations do not address or otherwise place limits on exploration for new fossil-bearing locations while working under a permit.

Comment: Specimens collected under permit should not have to be immediately deposited in a repository. Several respondents expressed the view

that serious amateur collectors and researchers who are not affiliated with a repository be allowed to retain possession of collected specimens while they are studying or performing research on them.

Response: The regulations do not specify a deadline for depositing specimens in a repository after collection. A time frame for timely transfer of collected materials by a permit holder to a repository would be specified in the permit.

Comment: Paleontological resources should be preserved in perpetuity. One respondent suggested that reference to preserving paleontological resources that are collected under permit in an approved repository be amended to indicate that such resources will be preserved for perpetuity for the public in an approved repository.

Response: The Department agrees that there is an expectation that specimens deposited in a repository will be preserved in perpetuity. However, a repository may not be able to provide written assurance that such preservation would be in perpetuity. Rather, the term of preservation would be addressed in a repository agreement.

Comment: Paleontological resources should be made available to qualified individuals. One respondent expressed the view that reference to making paleontological resources deposited in a repository available for scientific research and public education should be amended to indicate that such resources be made available to qualified individuals for scientific research and public education.

Response: The Department considers that paleontological resources which have been deposited in a repository are held in trust for the benefit of the public, and that formal restriction of access to such resources to qualified individuals is beyond the scope of the regulations.

Comment: Requirement for deposit in a repository does not distinguish between fossils collected for research or educational purposes. Respondents expressed the view that fossils collected for educational purposes and/or teaching collections in academic departments should not be subject to same requirement to be deposited in a repository as are research collections. Respondents also suggested that common invertebrate and plant fossils should not be required to be deposited in a repository.

Response: The definition of repository in the regulations allows for deposition of specimens collected under permit into teaching collections maintained by educational institutions. Common

invertebrate and plant paleontological resources subject to casual collection do not need to be deposited in a repository; however, common invertebrate and plant paleontological resources that are collected under a permit must be deposited in a repository.

Comment: Release of specific locality data should not be restricted.

Respondents expressed the view that terms and conditions of permits should not include restriction on release of specific locality data. Respondents suggested that permits require full and open disclosure of specific location information, with exception to full disclosure only in cases where collected specimens have a high market value and/or locations would be placed at risk by such disclosure. Respondents suggested that full disclosure of location data is necessary to provide full scientific value of collected specimens, and that separation of location information from specimens is irresponsible and may result in permanent loss of specific location information. Respondents expressed the view that rigid enforcement of confidentiality provisions would be onerous and jeopardize routine use of collections.

Response: Confidentiality of specific location information is required by the Act, and the regulations require that confidentiality with regard to specific location information be maintained by individuals who choose to solicit and receive a permit from the Forest Service to collect paleontological resources. The Forest Service may consider the context of the permitted project and collection locations in determining the appropriate level of specificity of location information that would be considered confidential. The Department does not consider that maintaining confidentiality of specific locations requires separation of specific locality information from specimens. Respondents' suggestion that enforcement of confidentiality provisions would be onerous and jeopardize routine use of collections is conjectural and not substantiated by data. Many repositories already house specimens, such as cultural archeological materials and endangered species, which are used in research and whose collection locations are considered confidential.

Comment: Specific location information that can or cannot be released. One respondent suggested that general location information be allowed to be released, and expressed the view that clarification should be provided regarding the level of specificity of location information (that is,

identification of State, and/or county and/or specific geologic unit in which location occurs) that could be allowed to be released.

Response: The level of specificity of location information that would be considered confidential would in most circumstances reflect the context of the occurrence, and would be decided on a case by case basis. Coordinates obtained from Global Positioning System (GPS) devices, or from other sources with a comparable level of accuracy would generally be considered too specific for general release and would remain confidential. Criteria for determining the appropriate level of specificity of location information would relate to case-specific circumstances and would not be appropriate to list in regulations.

Comment: Permit holder should be accorded responsibility to determine the appropriate level of specific location information for release. One respondent expressed the view that in being awarded a permit, a permit holder should be recognized by the Forest Service as being capable of making certain types of decisions without prior authorization, including being responsible for determining an appropriate level of specific location information that can be released.

Response: The appropriate level of specific location information that would be considered for release would be specified in permit terms and conditions. A permit applicant may provide suggestion, with justification, for the appropriate level of specific location allowed for release in the permit application.

Comment: Acknowledgment of the Forest Service in public communications resulting from collections. One respondent expressed the view that it would be difficult for a permit holder to comply with the requirement to acknowledge the Forest Service in public communications concerning collected materials after the collection has left the permit holder's possession and has been transferred to a repository where other users may access the collection. The respondent also suggested that a permit holder may acknowledge the Forest Service in good faith, but that a communications medium may remove the citation prior to distribution.

Response: The language of the regulations has been modified to clarify that a permit holder would only be responsible for acknowledging the Forest Service in public communications resulting from the permit holder's use of collected materials. The Forest Service would consider good faith efforts by a permit

holder to provide such acknowledgment, in circumstances as described by the respondent where lack of acknowledgment relates to factors beyond the control of the permit holder.

Comment: Timely issuance of repository catalog numbers may be beyond control of permit holder. One respondent expressed the view that a permit holder should not be required to adhere to a 1-year deadline for submittal to the Forest Service of a list of catalog numbers assigned by a repository to collected specimens. The respondent suggested that repositories may not assign catalog numbers to specimens in a timely manner, and that a permit holder may have no direct influence over when catalog numbers are assigned. The respondent suggested that the requirement be changed to accession numbers rather than catalog numbers, and/or that the time frame for submittal of catalog numbers be flexible.

Response: The regulations do not specify a 1-year deadline for submittal of repository-issued catalog numbers for specimens collected under permit. Rather, the regulations refer to a timeline, to be established in the permit, for submittal of a complete list of collected specimens and their current locations. Reference in the regulations to submittal of repository accession and catalog numbers in permit reports has been modified to clarify that submittal of accession and/or catalog numbers would be allowed, to account for circumstance wherein a repository may have assigned accession numbers to specimens but has not yet issued catalog numbers for those specimens.

Comment: Permit application requirements and terms and conditions do not distinguish between responsibilities of permit holder and repository. One respondent expressed the view that requiring a permit holder to identify a repository institution, provide documentation that the identified repository has agreed to accept collected materials, and that a permit holder be responsible for cost of curatorial activities associated with collected specimens does not distinguish between the roles and responsibilities of the permit holder and the repository institution with respect to the permitting process, and that such roles and responsibilities should be clarified.

Response: The Department recognizes that the roles and responsibilities of a permit holder and repository concerning proposed collections and subsequent collections management activity are often interrelated and difficult to disentangle. With regard to permitting and permit terms and conditions, the

Department considers that it is necessary for a permit applicant to establish in the application and for the Department to recognize at the time a permit is issued, that an appropriate repository has been identified, that the repository has agreed to accept the collections, and that financial mechanisms are in place to ensure continued professional management of the collected specimens. Because the permit applicant is proposing the collection activity, it is the applicant's responsibility to provide documentation that identifies an appropriate repository, to document that the repository has agreed to accept the collection, and to document that necessary funding has been secured to ensure collection maintenance. These issues must be addressed in the application and/or at the time a permit is issued, in order to minimize the possibility of issuing a permit that results in an orphaned collection.

Comment: Requirement to comply with tasks specified by Authorized Officer is too broad. One respondent suggested that the requirement for a permit holder to comply with all tasks required by the Authorized Officer, even in the event of permit expiration, suspension, or revocation is too broad. The respondent suggested that the word "tasks" be replaced by "terms and conditions" or "permit requirements."

Response: The Department agrees that reference to "tasks" is overly broad, and has replaced "tasks" by "permit requirements" to clarify the permit holder's continued obligations in the event of permit expiration, suspension, or revocation.

Comment: Additional permit conditions should not be allowed. Respondents expressed the view that the provision allowing for additional permit stipulations, terms, and conditions that are not already listed is too broad. Respondents suggested that the ability to add permit requirements could result in requirements that are arbitrary and that are not based in science and/or regulatory standards, and also suggested that reclamation of collection sites should not be a universal permit requirement.

Response: The Department requires the ability to establish permit terms and conditions that may be unrelated to paleontological resources, but are necessary to address location-specific conditions. The regulations do not specify site reclamation as a universal permit requirement.

Section 291.17 Permit Reports

Section 291.17 lists the information that is necessary for permittees to

include in the reports required under a permit to conduct paleontological activities. This information is required in order to address 16 U.S.C. 470aaa-1 which states that the Secretary shall manage paleontological resources using scientific principles and expertise.

Section 291.17—Response to Comments

Comment: Required content of reports should apply only to permit reports.

Respondents noted that the permit report requirements as listed in § 291.17 should apply only to permit holders and not to repository institutions, because a repository institution is not a signatory to a permit and should not be held responsible for addressing permit requirements. One respondent suggested that the term "museum agreements" be removed from the title of § 291.17 to clarify that the report content requirements listed therein pertain only to permit reports.

Response: The Department agrees with respondents' comments and the heading of § 291.17 has been changed to clarify that the section applies to permit reports and not to repositories.

Comment: Required content of reports is burdensome. Respondents expressed the view that the required content of permit reports is overly comprehensive, burdensome, and limits the free and open exchange of scientific information. Respondents suggested that required items be considered optional, and that the phrase "as appropriate" be added to requirements concerning identification of potential impacts to paleontological resources and mitigation recommendations to address identified potential impacts. Respondents suggested that requirements to supply repository-issued accession numbers and catalog numbers reflect repository processing time and are beyond the control of permit holders. One respondent suggested that up to 2 years following the end of field work be allowed for a permit holder to supply required information concerning inventories of collected specimens and collection locations.

Response: The Department considers that the specified report content is the minimum information necessary for the Forest Service to be able to evaluate work performed under permit and use such evaluations as the basis for managing its paleontological resources using scientific principles and expertise. Respondents' suggestions that report content is burdensome and limits the open exchange of scientific information are conjectural and not substantiated. The regulations already state that all items listed as report content are to be included "as appropriate". The

regulations do not specify a 1 year deadline for submittal of a permit report, including content related to repository-issued accession and catalog numbers for specimens collected under permit. Rather, the regulations refer to a timeline, to be established in the permit, for submittal of the permit report. Reference in the regulations to submittal of repository accession and catalog numbers in permit reports has been modified to clarify that submittal of accession and/or catalog numbers would be allowed, to account for circumstance wherein a repository may have assigned accession numbers to specimens but has not yet issued catalog numbers for those specimens.

Section 291.18 Modification of Permits

Section 291.18 provides the framework for the modification of permits, in accordance with 16 U.S.C. 470aaa-3(d). Examples of a permittee's request for permit modification would include, but would not be limited to: Changes to the persons listed on the permit, changes to the scope of work (including, but not limited to, geographic area, analysis or collecting techniques, or geologic strata), change of the designated approved repository, or changes to the permit timelines. Modification of a permit would be discretionary on the part of the Authorized Officer (see § 291.13(b)). Notifications regarding modifications would be in writing.

Section 291.19 Suspension and Revocation of Permits

Section 291.19(a) and (b) provides for the suspension or revocation of permits in accordance with 16 U.S.C. 470aaa-3 (d)(1) and (2). Suspensions would address a variety of management issues that may or may not be due to any fault of the permittee. For example, the Authorized Officer would be able to suspend a permit if conditions relating to other resources have changed. The Authorized Officer would also be able to suspend a permit for any violation of a term or condition of the permit, such as exceeding the approved scope of work.

A permit may also be suspended if permittee becomes ineligible to hold a permit. Examples of ineligibility include, but are not limited to, situations where the permittee is responsible for resource damage, if the approved repository is no longer available, or if the permittee provided false information to the Authorized Officer as part of the application for the permit.

A suspended permit may be revoked if the permittee fails to correct the reason(s) for the suspension in

accordance with the notification by the Authorized Officer. Permits that are suspended for reasons other than the permittee's conduct (for example, resource management closures, wildfires, and so forth) will not be revoked. Such circumstances will result in continued permit suspension until the situation is corrected, or in some cases, the permit may be modified.

Section 291.20 Appeals

Section 291.20 clarifies that a permittee may appeal the denial or revocation of a permit in accordance with 36 CFR part 214. Procedures for appealing a permit revocation or denial are set forth in 36 CFR part 214.

Section 291.21 Curation of Paleontological Resources

Section 291.21 clarifies that paleontological resources from National Forest System lands collected under a permit issued under these regulations must be deposited in an approved repository. Collections made from National Forest System lands before the effective date of these regulations would be covered under the terms of the original collection permit or agreement. Such instruments remain in effect and the collections remain Federal property. Repositories are encouraged to work with the Forest Service to ensure that the care of pre-existing collections meet the minimum requirements of these regulations.

Section 291.21—Response to Comments

Comment: Uniformity of repository requirements between the Departments of Agriculture and Interior. One respondent expressed the view that regulations concerning repositories be consistent between the Departments of Agriculture and Interior, so that repositories who maintain collections from both Departments would not have to implement separate standards of curation that would be costly and unnecessarily burdensome. The respondent suggested that the development of these regulations be suspended until versions from both the Departments of Agriculture and Interior are available for simultaneous review so that uniform standards may be established.

Response: The Departments of Agriculture and Interior closely coordinated the drafting of requirements related to repositories in their respective regulations, and the applicable repository standards are in substantive agreement. The Department does not consider that a requirement for separate standards of curation would be imposed on repositories, and the regulations

explicitly state that a repository approved by a Federal agency or bureau may be considered an approved repository by the Forest Service. Consequently, there is no need for simultaneous review of the respective regulation of the Departments of Agriculture and Interior regarding the establishment of uniform repository standards.

Comment: Non-research collections. Respondents suggested that the requirement for all collections of paleontological resources made under permit to be deposited in an approved repository is unreasonable. Respondents noted that this requirement may preclude collections for teaching purposes, many of which are housed in academic institutions rather than research-oriented repository institutions. Respondents also suggested that research collections of common invertebrate and plant paleontological resources be exempted from the requirement to be deposited in an approved repository. Respondents suggested that curation of common invertebrate and plant paleontological resources is costly and will hinder research, and that many repositories will not accept collections of common specimens owing to curation resource limitations.

Response: The definition of repository in the regulations allows for deposition of specimens collected under permit into teaching collections maintained by educational institutions. The suggestion that repositories may reject collections of common invertebrate and plant paleontological resources owing to resource limitations is conjectural, and no examples of such practice were offered. The regulations conform to the Act, which states that permitted collections of paleontological resources must be deposited in an approved repository, and which does not provide an exception for common invertebrate and plant paleontological resources. Use of specimens in research that are not properly curated would increase the risk of their loss, damage and/or misappropriation, all of which pose greater risk of hindering research than costs associated with appropriate curation of such specimens, which would ensure their availability to future researchers.

Comment: Additional information should be provided for common paleontological resources. One respondent expressed the view that more detailed information and guidance should be provided concerning criteria and procedures for storing, preparing, and documenting common paleontological resources.

Response: Common invertebrate and plant paleontological resources collected under permit would be subject to the same repository requirements as other paleontological resources collected under permit. Collection management functions such as storage, preparation, and documentation are the responsibilities of a repository, and are beyond the scope of the regulations to address.

Section 291.22 Becoming an Approved Repository

Section 291.22 states the requirements for becoming an approved repository. Section 291.22(a) states that the repository must meet the minimum standards in § 291.23 and agree to certain terms and conditions. Section 291.22(b) states that the Authorized Officer and the repository official may enter into a formal curation agreement in accordance with § 291.26. Section 291.22(c) explains that the repository must agree to periodic inventories and inspections as described in § 291.25. Section 291.22(d) clarifies that an Agency paleontologist in consultation with the repository official will make a determination of the content of the collection to be curated based on scientific principles and expertise. Section 291.22(e) explains that a repository that has been approved by one Federal agency may be considered approved by other Federal agencies. For example, a repository approved by the Forest Service may be considered approved by the Bureau of Land Management and vice versa.

Section 291.22—Response to Comments

Comment: Content of Collections. Respondents suggested that clarification should be provided concerning how the Authorized Officer will consult with a repository to determine the content of collections prior to their being deposited, and expressed the view that undue interference by the Authorized Officer may result in a repository declining to accept a collection. Respondents suggested that repositories generally maintain a defined scope of collections and that repository staff expertise is most appropriate to determine repository collection content. Respondents suggested that repository staff expertise should be relied on to make collection content decisions, that consultation with the Authorized Officer each time specimens are deposited would be burdensome, and that consultation with the Authorized Officer should be limited to circumstance where questions arise. Respondents also expressed the view that clarification should be provided

regarding the disposition of specimens that are not appropriate for repository collections.

Response: The process for determining the content of collections to be deposited in a repository institution will be established in a repository agreement. The terms of the repository agreement will determine the degree of latitude offered to the repository institution in determining the content of deposited collections, and circumstances that may require consultation with an Agency paleontologist regarding the content of permitted collections to be deposited will be described in the repository agreement. The roles of the Authorized Officer and agency paleontologist in determining the content of deposited collections are clarified by replacing the phrase “the Authorized Officer” with “an Agency paleontologist” in § 291.22(d) of the regulations. The manner of disposition of collected specimens that are not appropriate for a repository’s collections will be established in a repository agreement and/or through discussion with an Agency paleontologist.

Comment: Release of specific locality data. Respondents suggested that clarification should be provided regarding the level of specificity of locality data to be considered confidential, and suggested that the requirement of signed confidentiality agreements for recipients of specific locality information could delay or impede publication of research results in scientific journals that require publication of locality information.

Response: The level of specificity of location data to be considered confidential cannot be addressed appropriately in regulation, as such level will commonly reflect local considerations that are specific to the paleontological resource in question. Coordinates obtained using Global Positioning System (GPS) devices or geographic coordinates that reflect a comparable level of accuracy would generally be considered too specific. The suggestion that research publication could be delayed or impeded by the requirement for written confidentiality agreements from recipients of protected information is conjectural. A survey of publication requirements for a number of scientific journals that exclusively or commonly contain paleontology articles has demonstrated that most journals either do not require publication of specific location information, or make provision for not publishing such information for sensitive locations where public knowledge of specific locations presents risk to the resource.

Section 291.23 Minimum Requirements of Approval of a Repository

Section 291.23 states the minimum requirements that a repository must meet in order to be approved to provide long-term curatorial services for Federal paleontological collections. It is important to establish such requirements in these final regulations, rather than rely on standards contained in internal agency policy and guidance documents such as Department of the Interior Departmental Manual Part 411, in order to (1) promote consistency between the Departments, (2) eliminate subjectivity in approving repositories, and (3) provide sufficient information to repositories seeking to become approved under the Act and the final regulations.

Section 291.23—Response to Comments

Comment: Requirements of approval of a repository. One respondent stated that the definition of a “good repository” was not clearly stated, and another respondent suggested that the focus of this section should be on fossil collections and that requirements should include a guarantee that the fossil collection be treated by the repository as a permanently accessible source of scientific data.

Response: The Department considers that the conditions as set forth in § 291.23 of the regulations offer clear and sufficient detail for characterization of a repository that may be approved to house paleontological collections from National Forest System lands. The repository requirements set forth in these regulations reflect a focus on the paleontological collections and have been developed to ensure the long-term integrity of collections maintained in repositories. A focus on collections as permanently accessible sources of scientific data is reflected in the provisions of §§ 291.22(a)(iii) and 291.24(a) of these regulations.

Comment: Requirement for repository staff expertise in paleontology is burdensome. A respondent suggested a requirement for staff expertise in paleontology may be burdensome for small repository institutions

Response: The language in § 291.23(d) of the regulations has been modified to reflect that the level of repository staff expertise in paleontology be appropriate to the nature and use of the paleontological collections maintained by that repository.

Comment: Approval of a repository. Respondents expressed the view that clarification should be provided concerning whether or not approval of a repository is a one-time process, or if

an approval is required for every permit or collection considered for deposit. Respondents also expressed the view that decisions by the Forest Service regarding repository approval be timely.

Response: Following approval of a repository, the repository is considered to remain approved unless a change in the conditions related to approval warrant reevaluation. A repository approval and related repository agreement will generally require exchanges of information between the Forest Service and the repository institution; the Forest Service is committed to making repository approvals as timely as practicable.

Section 291.24 Standards for Access and Use of Collections

Section 291.24 of these final regulations provides repositories with consistent standards for access to and use of Federal collections in accordance with 16 U.S.C. 470aaa-3(c)(2), which states that paleontological resources will be preserved for the public in approved repositories and be made available for scientific research and public education. This section also addresses loans and reproductions, which increase the use and accessibility of paleontological resources consistent with professional and educational practices.

Section 291.24(f) clarifies when repositories must obtain approval from the Authorized Officer before allowing certain uses that may subject the specimens to damage. These uses include certain types of reproductions and consumptive analysis of specimens. Reproductions include molding and casting, and computerized axial tomography (CAT) scans. Routine photographic and/or digital reproductions would generally not require individual approvals, providing the reproductions are not made for commercial purposes, and that the reproductions do not require transfer of the specimen(s) to a different facility. Reproductions help expand use and accessibility of collections for exhibition, research, education, and interpretation. Producing a mold and then a cast of a specimen will allow an exact duplicate upon which research and exhibition can take place without further damaging the original specimen. Section 291.24(f)(2) clarifies that the approved repository may only allow consumptive analysis of specimens if the Authorized Officer, in consultation with an Agency paleontologist, has determined that the potential gain in scientific or interpretive information outweighs the potential loss of the paleontological resource. Consumptive analysis would generally be limited to

specimens that are not unique or fragile, or to a sample of specimens drawn from a larger collection of similar specimens.

Section 291.24—Response to Comments

Comment: Repository standards add unnecessary bureaucracy and are inconsistent with standard museum collection management practices. Respondents expressed the view that requirements related to repositories add unnecessarily to bureaucracy, are time-consuming to address, and are inconsistent with standard museum collection management practices. Respondents suggested that the Forest Service should collaborate with repositories and/or other professional organizations with a focus on museum collections management issues in drafting regulatory requirements pertinent to collections management. Respondents expressed the view that umbrella repository agreements be developed that clearly state the respective roles and responsibilities of the Forest Service and the repository, and that state how the costs associated with collections management are calculated and allocated.

Response: The Department considers that collections management requirements set forth in the regulations largely reflect collections management policies and procedures that are routinely employed by professionally managed repository institutions. Repository requirements were developed by a team of interagency specialists including those familiar with repository operations. In accordance with the Administrative Procedure Act, the solicitation of public comments on these final regulations is the established procedure for members of the public to provide comments concerning collections management for Department and Agency specialists to further consider prior to promulgation of the final regulations. The Department agrees that repository agreements could address costs associated with collections management, and nothing in these regulations would prevent repository agreements from addressing such costs.

Comment: Distinguishing responsibilities of repository and permit holder. Two respondents expressed the view that § 291.24 does not effectively distinguish between the respective responsibilities of the repository and the permit holder, who may not be affiliated with the repository. Respondents specifically note that repositories cannot be held responsible for collections which have not yet been deposited by permit holders.

Response: Section 291.16(f) of the regulations states that the permit holder is responsible for all work conducted under the permit; this should be understood to mean permitted work prior to depositing collected specimens in a repository institution. The regulations do not state that a repository is responsible for collected specimens prior to transfer of those specimens by the permit holder to the repository. A repository would not be considered responsible for collected specimens until after such specimens have been accessioned into the repository's collections.

Comment: Decision-making by approved repository. Respondents expressed the view that § 291.24 of these final regulations contains provisions that are not addressed in the Act and which place undue administrative burdens on repository institutions. Respondents also suggest that approval of a repository institution in accordance with §§ 291.22 and 291.23 demonstrates the responsible stewardship of that institution. Consequently, the qualified repository professional staff should have the authority to make decisions concerning reproductions and consumptive analyses based on institutional policies and professional standards, without requiring written approval from the Authorized Officer.

Response: Regulations may impose conditions that are considered necessary to implement provisions of the Act, even if such provisions were not explicitly specified in the Act. The Department considers that the repository conditions set forth in § 291.24 of the regulations are industry-standard best management practices already employed by most professionally-managed repository institutions. Forest Service specimens in repository collections remain Federal property, for which the Forest Service Authorized Officer is held ultimately accountable. The level of decision-making authority deferred to the repository in administering Forest Service paleontological specimens will be established in a repository agreement, and will reflect the degree of responsible stewardship demonstrated by the repository institution.

Comment: Role of private institutions. One respondent suggested that clarification should be provided regarding the role of private institutions or companies with respect to standards for access and use of collections.

Response: These regulations do not distinguish between roles that may be played by public or private institutions with respect to standards for access and

use of collections. Standards in the regulations apply equally to all institutions.

Comment: Providing access to specific locality data. Respondents expressed the view that clarification should be provided concerning how to administer requests by users for specific locality information, and expressed concern that separating locality data from specimens to ensure confidentiality is bad practice and reduces scientific usefulness of specimens.

Response: The Department does not consider that maintaining confidentiality of specific locations requires separation of specific locality information from specimens in repository collections. The repository institution is responsible for maintaining an appropriate level of confidentiality of specific locations of specimens. These regulations do not stipulate specific collections-based practices or procedures to ensure confidentiality; rather, the employment of specific practices or procedures as appropriate to maintain confidentiality is at the discretion of the repository institution.

Comment: Administration of confidentiality agreement. Respondents suggested that clarification should be provided regarding whether the Forest Service or the repository would administer confidentiality agreements, and suggested that repositories be explicitly allowed to share locality information with holders of Forest Service permits for mitigation projects.

Response: The Department considers that administration of confidentiality provisions is a shared responsibility of the Forest Service and the repository, and that administrative details would be addressed in a repository agreement. Institutional responsibilities in communicating confidential location information would be addressed in the repository agreement. The Department considers that entities with a demonstrated legitimate need to obtain confidential location information would generally be granted access to such information, and that consultation between the Forest Service and the repository should resolve any issues that may arise.

Comment: Responsibility for loaned specimens. Respondents expressed the view that clarification should be provided regarding whether a repository may require a borrowing institution to provide insurance for loaned specimens. Respondents expressed the view that the repository of origin cannot be held responsible for loaned specimens, and that the borrowing institution must be

responsible for loaned specimens during the loan period.

Response: A requirement to insure loaned specimens is a matter to be decided between the institutions that are parties to a loan, in accordance with the loan policies of the institutions. The Department considers that the parent repository for Federal paleontological specimens bears responsibility for the stewardship of those specimens, even if they have been loaned to another institution.

Comment: Records of collections use. Respondents suggest that tracking the use of Department collections separately from other collections will be burdensome, and that repositories should not be required to track collections uses apart from common practices in documenting loans, exhibition usage, and requiring citation in scientific research publications.

Response: The regulations do require tracking the scientific and educational uses of collections from National Forest System lands, but they do not require them to be tracked separately from other repository collections. The Department considers that tracking of collections use is an industry standard procedure for professionally-managed repository institutions, and that the ability to document such uses of Department specimens and/or collections would be a subset of more comprehensive collections management practices already employed by repositories.

Comment: Repository fees. Respondents suggested that clarification should be provided regarding whether repositories may charge fees to permit holders for the curation of deposited collections, and whether the Forest Service would provide financial support for curation of collections obtained under permit.

Response: The issue of charging fees to permit holders for the curation of collections from National Forest System lands is a matter to be decided between the permit holder and the repository institution. The issue of Forest Service assistance provided for curation of collections would be addressed in a repository agreement; generally, the Department can not commit to or guarantee financial support for collections.

Comment: Written approval for reproduction. Respondents expressed the view that the requirement for written approval from the Authorized Officer for reproductions is burdensome, because the listed types of reproductions are routine practices, are non-destructive, and pose little physical risk to specimens. Respondents further suggested that decisions regarding

making reproductions are more appropriately made by qualified repository professional staff with first-hand knowledge of specimen condition, rather than by the Authorized Officer who may not possess the expertise required to evaluate requests for reproductions based on their scientific merit. One respondent suggested that the Authorized Officer be required to consult a professional paleontologist regarding approvals for reproductions, and another respondent suggested that approvals should not be withheld by the Authorized Officer for non-scientific reasons.

Response: Particulars concerning the need for written approvals from the Authorized Officer for a repository to make reproductions would be addressed in a repository agreement. Routine photographic and/or digital reproductions would generally not require individual approvals, providing the reproductions are not performed for commercial purposes and do not require transfer of the specimen(s) to a different facility. The rule language has been clarified to reflect this. Generally, methods of reproduction that would require extensive physical manipulation of a specimen, transfer of a specimen to a different facility and/or that could reasonably be considered to pose risk of damage to a specimen would require approval. The rule language has been clarified to reflect that required approvals from the Authorized Officer would be issued in consultation with an Agency paleontologist. The Department does not expect that approvals for reproductions would be withheld for reasons unrelated to risk of potential specimen damage.

Comment: Reproductions governed by established practices and procedures. Respondents expressed the view that repository institutions generally have established practices and procedures governing reproductions, that requiring written approval from the Authorized Officer for reproductions results only in increased procedural burden, and that the requirement for written approval should be waived for institutions that have established practices and procedures governing reproductions. Another respondent suggested that requests for reproductions are often made by visiting researchers, and that it would be impractical to respond to such requests during the time of the visit. Respondents expressed the view that specimen reproductions are valuable in research, education, and exhibition, and that the burden of requesting written approval for reproductions would impede making reproductions and

would consequently hinder their use in research, education, and exhibition.

Response: Particulars concerning the need for written approvals from the Authorized Officer for a repository to make reproductions would be addressed in a repository agreement. A repository agreement may or may not recognize that established repository practices and procedures are sufficient to guide decisions concerning reproductions. Researchers should be aware of the potential need for written approval for non-routine reproductions, and requests for such approvals should be made in advance of research visits in order to ensure sufficient time to evaluate the request prior to visits. Written approval protocols prior to performing procedures that pose risk of damage to a specimen from National Forest System lands would not generally differ from such protocols that would be employed if the specimen were privately owned and on loan to a repository. The Department agrees that reproductions are valuable in research, education, and exhibition, and does not consider that requiring approvals in certain cases prior to making reproductions would substantially hinder the making, or use of reproductions.

Comment: Presumptive approval of reproduction in repository agreement. One respondent suggested that reproduction of specimens should be presumptively approved in repository agreements, or alternatively, that repository agreements should set forth those conditions under which written approval for reproduction would be required. This would reduce the burden of requiring written approval for each instance of proposed specimen reproduction.

Response: Particulars concerning the need for written approvals from the Authorized Officer for a repository to make reproductions would be addressed in a repository agreement. A repository agreement may or may not recognize that established repository practices and procedures are sufficient to guide decisions concerning reproductions. In some cases, a separate written approval for each instance of proposed specimen reproduction might be necessary.

Comment: Appeal for denial of reproduction. One respondent questioned whether there is a process to appeal a denial by the Authorized Officer of approval for reproduction.

Response: The regulations do not establish a process for the appeal of a decision by the Authorized Officer to deny approval for reproduction.

Comment: 3-D rendering. One respondent expressed the view that clarification should be provided

concerning the meaning of the phrase “three-dimensional [3-D] rendering.”

Response: The phrase “three-dimensional [3-D] rendering” has been removed to add clarity to the requirement for approval of reproductions.

Comment: Revenue from reproductions. One respondent suggested that specimen reproductions may be sold, and that funds obtained from such sales be used to defray the costs related to curation of collections. Another respondent suggested that proceeds from sales of reproductions be restricted to specified uses including emergency field collection of threatened paleontological collections on Federal lands, laboratory preparation of Federal collections, curation of Federal paleontological collections, care and storage of Federal paleontological collections, and any other purposes that are mutually agreed to by the parties in writing.

Response: The issue of using revenues generated from sales of reproductions to support curation of collections and other specified uses would be addressed in a repository agreement.

Comment: Consumptive analysis governed by established practices and procedures. Respondents expressed the view that repository institutions generally have established practices and procedures governing consumptive analysis, and that the requirement for written approval should be waived for institutions that have established practices and procedures governing consumptive analysis. Respondents further suggested that decisions regarding consumptive analyses are more appropriately made by qualified repository professional staff with first-hand knowledge of specimen significance, rather than by the Authorized Officer who may not possess the expertise required to evaluate requests for consumptive analyses based on their scientific merit. Respondents expressed the view that consumptive analyses provide scientific data regarding geochemistry and microscopic structure of specimens that would be otherwise unavailable, and that such data are necessary for isotope analyses and studies of growth and development, ancient biomolecule recovery, and paleobiomechanics. Respondents expressed the view that denial of approval by the Authorized Officer for consumptive analysis would have a chilling effect on such research.

Response: Particulars concerning the need for written approvals from the Authorized Officer for a repository to perform consumptive analyses would be addressed in a repository agreement. A

repository agreement may or may not recognize that established repository practices and procedures are sufficient to guide decisions concerning consumptive analyses. The Department agrees that consumptive analyses provide scientific data that are difficult to obtain by other means. The Department considers that most well-justified requests for approval to perform consumptive analyses would be supported, and that denial of approval for cause would generally be infrequent and not have an overall chilling effect on research.

Comment: Presumptive approval of consumptive analysis in repository agreement. One respondent suggested that consumptive analysis of specimens should be presumptively approved in repository agreements, or alternatively, that repository agreements should set forth those conditions under which written approval for consumptive analysis would be required. This would reduce the burden of requiring written approval for each instance of proposed consumptive analysis.

Response: Particulars concerning the need for written approvals from the Authorized Officer for a repository to perform consumptive analyses would be addressed in a repository agreement. A repository agreement may or may not recognize that established repository practices and procedures are sufficient to guide decisions concerning consumptive analyses.

Comment: Restrictions only apply to existing technologies. One respondent suggested that the proposed restrictions on consumptive analysis are overly detailed and only reflect existing technologies

Response: The regulations do not specify technologies, existing or otherwise, with respect to consumptive analyses.

Comment: Consumptive analysis of common invertebrate and plant fossils. One respondent suggested that written approval should not be required for consumptive analysis of common invertebrate and plant fossils.

Response: Common invertebrate and plant paleontological resources that are collected under a permit are subject to the same requirements pertaining to consumptive analyses as are any other paleontological specimens collected under permit. Particulars concerning the need for written approvals from the Authorized Officer for a repository to perform consumptive analyses on common invertebrate and plant paleontological resources would be addressed in a repository agreement.

Comment: Consumptive analysis of unique specimens. One respondent

suggested that reference to specimens as unique should be clarified because every specimen can be considered unique.

Response: The term “unique specimen” as used herein refers to any specimen that possesses one or more attributes that offer singular scientific information that is not present in other known and otherwise similar specimens.

Comment: General limitation of consumptive analysis. One respondent suggested that, as employed in the Preamble discussion, the phrase “. . . consumptive analysis would generally be limited. . .” should be modified by replacing “generally” by “may” to help reduce instances of apparent arbitrary denials.

Response: The Department considers that the suggested change in wording results in a meaning that is largely equivalent to the original passage, so the original wording is retained. The Department considers that denials of approval for consumptive analyses would not be arbitrary, but rather would be for cause related to irreversible adverse effects of such analyses on specimens that are not commensurate with gain in scientific knowledge provided by such analyses.

Section 291.25 Conducting Inspections and Inventories of Collections

Section 291.25 clarifies the responsibilities of the Authorized Officer and the repository for inspections and inventories of Federal paleontological collections as required by the Federal Property and Administrative Services Act (40 U.S.C. 541 *et seq.*) and its implementing regulations (41 CFR parts 101 and 102) and guidance which require periodic inspections. The responsibilities of the repositories for the stewardship of Federal paleontological collections is clarified by citing these authorities in these final regulations. It is important for repositories to know that after a Federal paleontological collection is placed in an approved repository, the Authorized Officer still retains the ultimate responsibility to ensure that the collection is adequately accounted for and maintained on behalf of the Federal government.

Section 291.25—Response to Comments

Comment: Reference to Federal Property and Administrative Services Act. Respondents suggest that reference to the Federal Property and Administrative Services Act and its implementing regulations is not appropriate, because that act and implementing regulations concern

Federal property, and are not specific to natural history collections in recognized repositories.

Response: Paleontological resources collected under permit from National Forest System lands remain Federal property as stated in the Act, and statutory and regulatory authorities pertaining to Federal property apply to such paleontological resources.

Comment: Inventories and inspections distinct from routine collections management and inventory processes. Respondents suggested that clarification should be provided regarding whether the required inventories and inspections would be separate from routine collections management and inventory processes carried out by repository institutions. Respondents also expressed the view that clarification should be provided regarding whether it is the responsibility of the institution or the Authorized Officer to perform the inventories and inspections, if they are required to be separate from such operations routinely performed by the institution.

Response: Inventories and inspections as specified in the regulations would not be required to be separate or distinct from routine collections management and inventory processes, providing that the requested information can be produced for collections from National Forest System lands. The party, or parties, responsible for conducting such inventories and/or inspections would be specified in a repository agreement.

Comment: Notification of request for inventory or inspection. Two respondents suggested that clarification should be provided concerning the process by which a repository would be notified of a request to perform an inspection or inventory.

Response: The method of notification of a request to perform an inspection and/or inventory would be specified in a repository agreement.

Comment: Cost of inventories and inspections. Respondents suggested that the cost associated with inventories and inspections is an unfunded mandate and does not benefit the repository institution. Respondents suggest that there is no clear distinction between whether the repository or the permit holder, who may not be affiliated with the repository, is responsible for costs associated with such inventories and inspections, and suggest that §§ 291.14(e) and 291.16(p) are inconsistent regarding whether the repository or the permit holder are responsible for bearing such costs.

Response: Inventories and/or inspections of collections from National

Forest System lands would not necessarily differ from routine collections management processes that are already employed by professionally managed repository institutions.

Consequently, such inventories and/or inspections would not necessarily result in expenses in excess of those already accrued by a repository that routinely employs such management processes. The Department does not distinguish between whether a permit holder or a repository, or both, are responsible for costs associated with collections management processes, and either or both parties may assume funding responsibilities. The allocation of funding for collections management activities is a matter to be decided between the repository and permit holder, and should be determined prior to a repository agreeing to accept a collection. Language in § 291.16(p) has been modified to clarify that a permit holder, repository, or both may share responsibility for expenses related to collections management.

Section 291.26 Repository Agreements

Section 291.26(a) clarifies that the Authorized Officer may, on behalf of the Agency, enter into agreements with approved repositories. Such agreements would define curation responsibilities of the approved repositories and promote consistency in collections management.

Section 291.26(b) specifies the terms and conditions that would be included in a repository agreement, as appropriate. These terms and conditions are consistent with those that are required for repository agreements for Federal archeological resource collections at 36 CFR part 79, but have been modified to be relevant for paleontological collections. It is important to include these terms and conditions in these final regulations to ensure consistency between the Departments, to provide adequate notice to current and potential repositories, and to provide standard treatment of paleontological resources originating from lands controlled or administered by the Agency.

Section 291.26(b)(8) protects the confidentiality of specific paleontological locality data in collections.

Section 291.26—Response to Comments

Comment: Distinguishing responsibilities of repository and permit holder. Two respondents expressed the view that § 291.26 does not effectively distinguish between the respective responsibilities of the repository and the permit holder, who may not be affiliated

with the repository. Respondents specifically note that repositories cannot be held responsible for collections which have not yet been deposited by permit holders.

Response: Section 291.26 refers to repository agreements and does not reference permit holders. The regulations do not state that a repository is responsible for collected specimens prior to transfer of those specimens by the permit holder to the repository. A repository would not be considered responsible for collected specimens until after such specimens have been accessioned into the repository's collections.

Comment: Shared responsibility and funding. Respondents suggest that a repository agreement should reflect a partnership between the Forest Service and the repository regarding preservation and care for collections, and that the agreement should contain provision for Forest Service funding to support the expense associated with managing and maintaining Federal collections. Respondents suggest that as currently written, the collections management provisions of the regulations require additional repository staff and resources and consequently place additional financial burdens on repositories that are not concomitant with benefit to science and would impede research on National Forest System lands. One respondent suggested that many repositories have traditionally provided such collections management services on a pro bono basis to the mutual benefit of the Forest Service and repository, and that the final regulation of such services is not necessary.

Response: The Department agrees that a repository agreement reflects a partnership between the Forest Service and a repository institution that ensures appropriate management of collections from National Forest System lands. However, the Forest Service can not commit to or guarantee financial support for collections management. The Department considers that collections management requirements set forth in the regulations largely reflect collections management policies and procedures that are routinely employed by professionally managed repository institutions. Consequently, such stipulations would not require additional repository staffing and/or resources and associated financial burden. The Department considers that collections management provisions that ensure appropriate management of collections from National Forest System lands will ensure future availability of those collection for research and

educational uses that benefit science. Such collections management provisions would not necessarily result in expenses in excess of those already accrued by a repository that routinely employs such management practices. The Department recognizes that many repositories have traditionally provided curatorial services at no cost in the prior absence of regulations. The establishment of regulations reflecting collections management policies and procedures that are routinely employed by professionally managed repository institutions for the purpose of ensuring the longevity of collections from National Forest System lands should not jeopardize existing relationships between the Forest Service and repository institutions.

Comment: Repository agreement optional. One respondent suggested that repository agreements should be optional rather than required, and that such agreements should not result in unfair administrative burdens placed on the repository.

Response: The Authorized Officer is not required by these regulations or the Act to enter into an agreement with a repository. A repository agreement would formalize that a repository is considered approved by the Forest Service, and would establish standards of collections management that would ensure appropriate care and resulting longevity of collections from National Forest System lands. Such collections management standards would be largely consistent with such policies and procedures as are routinely employed by professionally managed repository institutions, and would not be expected to increase or place unfair administrative burdens on repositories.

Comment: Provision of publications burdensome. One respondent suggested that requirements for repositories to track publications resulting from collections use and to provide copies of such publications to the Forest Service are burdensome, and also questioned the source of funds required to perform these functions.

Response: The Department agrees that the proposed requirements for a repository to track and provide copies of publications by researchers that are not affiliated with the repository is burdensome. Such requirements have been removed from the regulations.

Section 291.27 Prohibited Acts

Section 291.27(a) restates the prohibited acts contained in 16 U.S.C. 470aaa–5(a).

Section 291.27(b) implements the false labeling prohibition contained in 16 U.S.C. 470aaa–5 (b). The Authorized

Officer would have discretion to consider whether false labeling was inadvertent in evaluating whether to seek penalties for instances of false labeling.

Section 291.27—Response to Comments

Comment: Prohibited Acts. A respondent suggested that enforcement of the regulations would cost millions of dollars not currently available, and another respondent expressed the view that the Agency should communicate the regulations widely to the collecting public, since the burden should not be on the public to be aware of the regulations or what constitutes civil and criminal violations.

Response: The suggestion that enforcement of the regulations will cost millions of dollars is conjectural. Given resource limitations, enforcement of any regulations is often prioritized and the Department anticipates that enforcement of these regulations will be encompassed within its existing enforcement program without expenditure of additional monetary resources. The Department agrees that communication of the regulations to the public is an important outreach effort. Publication in the **Federal Register** is one part of this outreach. However, ultimately it is the responsibility of the public to be aware of the rules and regulations pertaining to use of public lands.

Section 291.28 Civil Penalty

Section 291.28 provides that a person who violates any prohibition contained in these final regulations or in a permit issued under these final regulations may be assessed a penalty by the Authorized Officer, after the person is given notice and opportunity for a hearing with respect to the violation. For purposes of these final regulations, each violation is considered a separate offense.

The civil penalty provisions in the final regulations were modeled after the civil penalty regulations promulgated pursuant to the Archaeological Resources Protection Act, 16 U.S.C. 470aa–mm.

Section 291.29 Amount of Civil Penalty

Section 291.29(a) sets forth the factors to be used by the Authorized Officer in determining the amount of the penalty, including the scientific or fair market value, whichever is greater, of the paleontological resource involved; the cost of response to and restoration and repair of the resource and the paleontological site involved; and other factors considered relevant by the Authorized Officer in the written

response submitted under § 291.30. Section 291.29(b) also clarifies that repeated violations could result in the doubling of the penalties. Such doubling may occur only after a conviction or an otherwise proven violation. Section 291.29(c) provides that the amount of any penalty assessed under this Section for any one violation would not exceed an amount equal to double the cost of response to and restoration and repair of resources and paleontological site damage plus double the scientific or fair market value of resources destroyed or not recovered, in accordance with 16 U.S.C. 470aaa–6(a)(3) and (4). This paragraph is intended to ensure that response costs may be included in the determination of penalty amounts. Section 291.29(d) provides that scientific and fair market values and the cost of response to and restoration and repair of the resource and the paleontological site involved are to be determined as described under §§ 291.37, 291.38, and 291.39.

Section 291.29—Response to Comments

Comment: Maximum amount of civil penalty. One respondent suggested that since most violations would be expected to result in only minor disruptions to topsoil, the maximum amount of civil penalty be capped at \$50 or an amount equal to the cost of response to and restoration and repair of resources and paleontological site damage plus the scientific or fair market value of resources destroyed or not recovered.

Response: The suggestion that that most violations would result in only minor disruptions to topsoil is conjectural. The Act has established limitations to civil penalty amounts and factors to be considered in the determination of civil penalty amounts, and the final regulations conform to the provisions of the Act. A \$50 cap is not consistent with provisions of the Act, and the Department reserves the right to impose non-trivial penalty amounts in order to recover costs associated with an enforcement action, including land surface and resource restoration, and also to deter future violations.

Comment: Fair market or commercial value. Two respondents raised potential concerns regarding the determination of fair market or commercial value of paleontological resources. One concern is that many paleontological resources may not have fair market or commercial value, and the other concern is that using fair market or commercial values in penalty assessment may convey the misleading perception that the Agency views paleontological resources as marketable commodities.

Response: The Department agrees that many paleontological resources may not have established fair market or commercial value. However, fair market or commercial value is only one tool in assessment of penalties associated with violations, and it should be considered where such values can be determined. The Department agrees that from the regulatory perspective, paleontological resources that originate from National Forest System lands are not marketable commodities, and should not be viewed as such. However, the Department has no jurisdiction over fossils that are collected from private lands which have been variously considered as marketable commodities, among other perspectives. In such cases where a fair market or commercial value is associated with particular fossils, the Department believes that it is appropriate to consider such values in assessing penalties for violations which occur on National Forest System lands.

Section 291.30 Civil Penalty Process

Section 470aaa–6(a) of the Act requires that any person assessed a penalty under the Act be given notice and opportunity for a hearing with respect to the violation. Section 291.30 would describe the process by which a civil penalty notice of violation is served on the person or party believed to be subject to a civil penalty, and the deadline and options for the person or party served with the notice to respond. Section 291.30(a) describes the contents of the civil penalty notice of violation that would be served on the person believed to be subject to a civil penalty, including a statement of facts in regard to the violation, the legal citation of that part of the Act or regulations that was violated, the amount of the proposed penalty, and the notice of the right to a hearing or judicial relief of the final administrative decision. This paragraph requires delivery by certified mail (return receipt requested) of these documents, rather than personal delivery as allowed by other regulations, in order to simplify compliance with the timeline required by this section. Section 291.30(b) explains that the recipient of the notice of violation has 45 calendar days to respond in accordance with this section. Section 291.30(c) describes the procedures which the Authorized Officer would use to assess the final amount of the penalty. Section 291.30(d) describes the factors that the Authorized Officer may consider in offering to modify or remit a penalty. Section 291.30(e) explains that after the Authorized Officer has determined the final amount of the civil penalty, a written notice of the assessed

amount would be served to the recipient of the notice of violation. The notice of assessment would be served by some type of verifiable delivery, such as by certified mail, return receipt requested. Section 291.30(f) explains the procedures of how the recipient of a notice of violation or a notice of assessment would file for a hearing. A request for a hearing must be in writing, must include a copy of the notice, and must be sent by certified mail, return receipt requested. The request for a hearing must be filed within 45 calendar days of the mailing of the notice and failure to file a request within the timeframe would be considered a waiver of the right to a hearing. Section 291.30(g) explains what constitutes the final administrative decision of the civil penalty amount. Under a notice of violation, the final administrative decision is when the recipient agrees to the amount of the proposed civil penalty. Under a notice of assessment, when a recipient has not requested a hearing within the 45 calendar day timeframe, the amount of the civil penalty in the notice of assessment is the final administrative decision. Under a notice of assessment, when a recipient has filed a timely request for a hearing, the decision resulting from the hearing is the final administrative decision. Section 291.30(h) explains that the person who has been assessed a civil penalty has 45 calendar days after the final administrative decision is issued to make the payment unless a timely request was filed with the U.S. District Court as provided in § 291.32. Section 291.30(i) explains that assessment of a civil penalty under this section is not deemed a waiver of the right for the Federal government to pursue other available legal or administrative remedies.

Section 291.30—Response to Comments

Comment: Civil penalty process and penalty relief. One respondent felt that individuals being assessed civil penalties should not be afforded penalty relief by providing information that would assist in the detection, prevention, or prosecution of violations.

Response: Paleontological resource theft or destruction, or both, has been documented to occur on National Forest System lands. However, due to the often vast and isolated nature of National Forest System lands and limited Forest Service staff field presence, it is difficult for Forest Service staff to detect and respond to such illegal activities at the time that they occur. Consequently, standard law enforcement tools such as penalty relief serve as important and necessary incentives for the public to

report knowledge of such illegal activities that may otherwise be undetected by Forest Service staff.

Section 291.31 Civil Penalties Hearing Procedures

Title 16 U.S.C. 470aaa–6(c) requires that hearings for civil penalty proceedings be conducted in accordance with 5 U.S.C. 554 of the Administrative Procedures Act (APA). Section 291.31 describes the procedures by which civil penalty hearings shall be conducted.

Section 291.31(a) explains that the recipient of a notice of violation or assessment may file a written request for a hearing in the office specified in the notice. The recipient would need to enclose a copy of the notice with the request. The person requesting a hearing would be able to state their preference as to the place and date for a hearing, but any such requested locations must be situated within the United States and be reasonable to be considered. In all cases, the Agency will retain discretion to decide the location of the hearing. Section 291.31(b) explains that upon receipt of the request for a hearing, the hearing office would assign an administrative law judge. Notification of the assignment of the judge would be given to all the parties involved, and from then on, all documentation for the proceedings must be filed with the administrative law judge and copies sent to the other party. Section 291.31(c) contains the procedures for appearances and practice before the administrative law judge. This paragraph addresses the appearance by the respondent, that is, the recipient of the notice who has filed for a hearing, either in person, by representative, or by legal counsel. If the respondent or their representative fails to appear, the administrative law judge would determine if the failure to appear is without good cause. A failure to appear without good cause would be considered a waiver of the respondent's right to a hearing and the respondent's consent to the decision made at the hearing by the administrative law judge. Section 291.31(d) provides the details of the administration and the outcome of the hearing. This paragraph declares that the administrative law judge has the authority of law to preside over the parties and the proceeding and to make decisions in accordance with the APA. This paragraph explains what constitutes the final record for the proceedings and for the decision made by the administrative law judge for the final assessment of the civil penalty, declares that the administrative law judge's decision is the final administrative decision of the Agency,

and is effective 30 calendar days after the date of the decision.

Section 291.32 Petition for Judicial Review; Collection of Unpaid Assessments

Title 16 U.S.C. 470aaa–6(b)(1) provides for petitions to the U.S. District Court for judicial review of decisions of a final assessment of civil penalties. Section 291.32(a) provides notice to the public about this right by restating the Act's provisions regarding judicial review of the final Agency decision assessing a penalty under §§ 291.28 through 291.31, and describe the court's standard of review of the final Agency decision. The respondent would have 30 calendar days from the date the Agency decision was issued to file the petition. Section 291.32(b) clarifies the provisions in 16 U.S.C. 470aaa–6(b)(2) that address the failure to pay a penalty assessed under §§ 291.28 through 291.31. Failure to pay an assessed penalty within 30 calendar days of the issuance of the final Agency decision would be considered a debt to the U.S. Government; the Secretary would be authorized to request the Attorney General to institute a civil action to collect the penalty, and the court would prohibit review of the validity, amount, and appropriateness of such penalty. If the Secretary does not institute a civil action, the Agency would be able to recover the assessed penalties by using other available collection methods such as Treasury offset.

Section 291.33 Use of Recovered Amounts

Section 291.33 implements the authority conveyed in 16 U.S.C. 470aaa–6(d) for the Agency to use collected penalties or restitution for certain purposes without further authorization or appropriations. This final regulation allows the Authorized Officer to use collected penalties or restitution without further appropriation to protect, restore, or repair the paleontological resources and sites that were the subject of the action, and to protect, monitor, and study the resources and sites, and/or provide educational materials to the public about paleontological resources and sites, and/or provide for the payment of rewards. These categories are not listed in priority order.

Section 291.33—Response to Comments

Comment: Use of penalty fees for research. One respondent suggested that collected penalties be used to support paleontological research.

Response: The Act states that collected civil penalties may only be used to protect, restore, or repair, or to

protect, monitor, and study sites which were the subject of the action; or to provide educational materials to the public about paleontological resources and sites; or to provide payment of rewards. These final regulations conform to the Act regarding use of recovered amounts, and so the use of collected penalties to support paleontological research is already allowed, subject to the limitation that such research be performed on sites that are the focus of enforcement action.

Section 291.34 Criminal Penalties

Paragraph 291.34(a) restates the penalties provided for by 16 U.S.C. 470aaa–5(c). This section does not preclude the Forest Service from using other laws or regulations in addition to or in lieu of the Act as the basis for charging violators. Violations of the prohibitions in the Act and in the regulations would be subject to criminal as well as civil penalties.

Section 291.34(b) clarifies that the determination of the values and the cost of response, restoration, and repair would be determined in accordance with §§ 291.37, 291.38, and 291.39.

Section 291.35 Multiple Offenses

Section 291.35 restates the penalties for multiple offenses provided for by 16 U.S.C. 470aaa–5(d). This section clarifies that in the case of a second or subsequent violation by the same person, the amount of the penalty assessed may be doubled. Such doubling may occur only after a conviction or an otherwise proven violation.

Section 291.35—Response to Comments

Comment: Multiple offenses. One respondent suggested that assessed penalty amounts increase proportionately with number of violations by the same person.

Response: The Act states that in the case of second or subsequent violations by the same person, the amount of the penalty assessed may be doubled. The Act does not make provision for proportionate penalties in cases of multiple offenses by the same person, and the final regulations are consistent with the Act.

Section 291.36 General Exception

Section 291.36 restates the exemption of 16 U.S.C. 470aaa–5(e) for any person with respect to any paleontological resource which was in the lawful possession of such person prior to the date of enactment of the Act.

Section 291.37 Scientific or Paleontological Value

Section 291.37 specifies the factors and costs that may be considered in determining the scientific value of a paleontological resource, and clarifies that the terms *scientific value* as used in 16 U.S.C. 470aaa–6(a)(2) and *paleontological value* as used in 16 U.S.C. 470aaa–5(c) are the same value and are interchangeable for the purposes of these final regulations. Costs such as the preparation of a research design would be based on what it would have cost, prior to the violation, to conduct this research appropriately and in a way that would preserve the scientific and educational value of the paleontological resource. The calculation of this value using these types of costs would be the best method to reflect the loss of contextual information related to the locality, stratigraphy and geology of the paleontological resource while it was still *in-situ*.

Section 291.37—Response to Comments

Comment: Include "locality" in preamble discussion of scientific or paleontological value. One respondent expressed the view that the word locality should be inserted in the preamble discussion of scientific or paleontological value, as follows: "The calculation of this value using these types of costs would be the best method to reflect the loss of contextual information related to the *locality*, stratigraphy, and geology of the paleontological resource while it was still *in-situ*."

Response: The Department agrees that the suggested addition provides clarification regarding the nature of lost contextual information, and has added the word "locality" as proposed to the preamble discussion.

Section 291.38 Fair Market or Commercial Value

Section 291.38 specifies the factors and costs to be included in determining the fair market value of a paleontological resource, and would clarify that the terms *fair market value* as used in 16 U.S.C. 470aaa–6(a)(2) and *commercial value* as used in 16 U.S.C. 470aaa–5(c) are the same value and are interchangeable for the purposes of these final regulations. Fair market value of paleontological resources would be established through the standard professional methods of using comparable sales information, advertisements for comparable resources, appraisals, pricing of comparable resources, and/or other information, regardless of whether or

not such information, advertisements, appraisals, or pricing would be from legal or illegal markets. For example, the information, advertisements, appraisals or pricing that would be used to establish fair market value could come from paleontological resources excavated legally or illegally from State, private, non-Federal lands, or from paleontological resources excavated illegally from Federal lands. In cases where there would be no comparable fair market value, the value of the paleontological resources would be determined by scientific value or the cost of response, restoration, and repair.

Section 291.38—Response to Comments

Comment: Fair market or commercial value. One respondent suggested that in the second sentence of § 291.38 as discussed in the Preamble, the first “or” should be replaced with “and/or” to read: “. . . pricing of comparable resources, and/or other information, . . .”

Response: The Department agrees that the proposed change adds clarification and has incorporated that change in the Preamble and the Final Rule.

Section 291.39 Cost of Response, Restoration and Repair

Section 291.39 clarifies that, for purposes of these regulations, the cost of response, restoration, and repair of paleontological resources involved in a violation would be the sum of the costs incurred for response, investigation, assessment, emergency restoration or repair work, plus those costs projected to be necessary to complete restoration and repair.

Section 291.39—Response to Comments

Comment: Cost of Response, Restoration, and Repair. One respondent suggested that in the first sentence of § 291.39, The word “plus” should be replaced with “and” to read: “. . . be the sum of the costs incurred for response, investigation, assessment, emergency restoration or repair work, and those costs projected to be necessary to complete restoration . . .”

Response: The Department considers that the proposed change is equivalent in meaning to the original language, and has elected to retain the original language.

Section 291.40 Rewards

Section 291.40 provides that rewards would be determined and paid at the discretion of the Authorized Officer (see 16 U.S.C. 470aaa–7(a)). This section does not preclude agencies using other authorities and fund sources such as State funds to offer rewards for

information that may lead to a conviction or finding.

Section 291.40—Response to Comments

Comment: Rewards. One respondent felt that rewards from penalties collected should not be offered to individuals furnishing information leading to finding of civil violation or criminal conviction.

Response: Paleontological resource theft or destruction, or both, has been documented to occur on National Forest System lands. However, due to the often vast and isolated nature of National Forest System lands and limited Forest Service staff field presence, it is difficult for Forest Service staff to detect and respond to such illegal activities at the time that they occur. Consequently, standard law enforcement tools such as rewards serve as important and necessary incentives for the public to report knowledge of such illegal activities. Moreover, the Act stipulates that rewards as described in these regulations be made available.

Section 291.41 Forfeiture

Section 470aaa–7(b) of the Act provides for the forfeiture of paleontological resources for violations under 16 U.S.C. 470aaa–5 or aaa–6. However, the Act did not provide the procedures for conducting either the criminal or the civil forfeiture of these resources. Forfeiture regulations and proceedings are very complex; therefore, rather than developing new forfeiture regulations that are only applicable to paleontological resources, this section proposes to use agreements with other agencies to conduct forfeiture proceedings as required by Civil Asset Forfeiture Reform Act (18 U.S.C. 983) or other applicable forfeiture statutes.

Section 291.41(a) explains that all paleontological resources found in possession of a person with respect to a violation of §§ 291.28 through 291.36 of these final regulations are subject to forfeiture proceedings in accordance with the Civil Asset Forfeiture Reform Act or other applicable forfeiture regulations. The Department is authorized to enter into cooperative agreements with other agencies that have forfeiture regulations in place for the initiation of forfeiture actions.

Section 291.41(b) explains that the Federal government holds seized resources until the case is adjudicated, and would provide for the transfer of administration of seized paleontological resources. However, before paleontological resources seized in a criminal or civil case can be transferred administratively, the proceedings under § 291.41(a) must be followed. Once the

resources are deemed to be forfeited, their administration may be transferred to an institution in accordance with 16 U.S.C. 470aaa–7(c). Such transfer would not mean that the Federal government is transferring ownership; it would only be transferring administration of the resources.

Amendments to Title 36 Code of Federal Regulation Part 261—Prohibitions, Sections 261.2 (Definitions) and 261.9 (Property)

The definition of *paleontological resource* contained in § 261.2 would be removed because it is inconsistent with the term *paleontological resource* as defined in 16 U.S.C. 470aaa and in § 291.5 of these final regulations.

Section 261.9(i) would be removed because it is inconsistent with 16 U.S.C. 470aaa–5 and § 291.27(a)(3) of these final regulations, which prohibit the sale or purchase of paleontological resources from National Forest System lands.

Regulatory Certifications

Regulatory Planning and Review

This final rule has been reviewed under USDA procedures and Executive Order (E.O.) 12866 on regulatory planning and review. The Office of Management and Budget (OMB) has determined that this final rule is not significant for purposes of E.O. 12866. This final rule would not have an annual effect of \$100 million or more on the economy, nor would it adversely affect productivity, competition, jobs, the environment, public health and safety, or State and local governments. This final rule would not interfere with any action taken or planned by another agency, nor would it raise new legal or policy issues. Finally, this final rule would not alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of beneficiaries of such programs. Accordingly, this final rule is not subject to OMB review under E.O. 12866.

Proper Consideration of Small Entities

The final rule has also been considered in light of Executive Order 13272 regarding proper consideration of small entities and the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), which amended the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). The final rule for Paleontological Resources Preservation will not have a significant economic impact on a substantial number of small entities as defined by E.O. 13272 and

the SBREFA, based on the following considerations:

The final rule would not impose additional restrictions or permitting requirements, beyond what is already practiced or required under existing regulations, that would invalidate, modify, or adversely affect the ability to conduct current or future activities (for example, mining, timber harvesting, grazing, recreation) on National Forest System lands as permitted under applicable laws other than the Act. The final rule would prohibit collection of paleontological resources for commercial purposes; however, this prohibition is consistent with past and current Agency practices (as guided by broad provisions in the Organic Administration Act of 1897 and the American Antiquities Act of 1906) on National Forest System lands and is, therefore, not a new restriction. Special use authorization for commercial collection of paleontological resources is permitted under 36 CFR 261.9(i); however, the Agency is aware of only one special use permit in the past that involved sale of paleontological resources, and that permit was not renewed. The final rule includes removal of 36 CFR 261.9(i) as a conforming change necessitated by the Act, which does not allow the collection of paleontological resources for commercial purposes. Casual collection of paleontological resources, as defined in the Act, by customers of some special use permit holders (for example, outfitters and guides) is currently allowed under specific conditions, and the final rule would continue to allow this activity as long as the activity is consistent with the conditions for casual collection as set forth in the final rule. The final rule would encourage scientific and educational use of paleontological resources by preserving the resources, promoting public awareness, and allowing for casual collection, thereby helping to maintain opportunities for small non-profit organizations to benefit from continued access to these resources on National Forest System lands. These final regulations provide for permitted collection of vertebrate and other paleontological resources not subject to the casual collection exemption, consistent with past Forest Service practices, thereby maintaining opportunities for organizations (for example, academic, paleontological resource assessment contractors) to collect paleontological resources for non-commercial research and paleontological resource assessment purposes.

It is not possible to specifically identify the population of small entities that may be involved with activities that may include casual collection of paleontological resources on NFS lands because there is no Forest Service special use code to track this activity.

The minimum requirements on small entities imposed by this final rule associated with authorization by permit to collect paleontological resources are necessary to protect the public interest and federal property, not administratively burdensome or costly to meet, and are within the capabilities of small entities to perform. The final rule would not materially alter the budgetary impact of entitlements, user fees, loan programs, or the rights and obligations of program participants. It does not compel the expenditure of \$100 million or more by any State, local, or Tribal government, or anyone in the private sector. Under these circumstances, the Forest Service has determined that this action will not have a significant economic impact on a substantial number of small entities. Based on the evidence presented above, a regulatory flexibility analysis is not required for this rule.

Environmental Impact

The Forest Service has determined that this final rule falls under the categorical exclusion provided in Forest Service regulations on National Environmental Policy Act procedures. Such procedures exclude from documentation in an environmental assessment or impact statement “rules, regulations, or policies to establish service wide administrative procedures, program processes, or instructions” 36 CFR 220.6(d)(2); 73 FR 43084 (July 24, 2008). This final rule outlines the programmatic implementation of the Act, and as such, has no direct effect on Forest Service decisions for land management activities.

Unfunded Mandates

Pursuant to Title II of the Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538), which the President signed into law on March 22, 1995, the Forest Service has assessed the effects of this final rule on State, local, and Tribal governments and the private sector. This final rule would not compel the expenditure of \$100 million or more by any State, local, or Tribal governments, or anyone in the private sector. Therefore, a statement under section 202 of that act is not required.

No Takings Implementations

This final rule has been analyzed in accordance with the principles and

criteria contained in Executive Order 12630. It has been determined that this rule would not pose the risk of a taking of constitutionally protected private property. It implements new regulations that would reflect the new statutory authority for managing, preserving, and protecting paleontological resources on National Forest System lands and that reflect prior policies, procedures, and practices for the collection and curation of paleontological resources on National Forest System lands.

Federalism

The Forest Service has considered this final rule under the requirements of Executive Order 13132, Federalism, and has determined that the final rule conforms with the federalism principles set out in this E.O. The final rule would not impose any compliance costs on the States other than those imposed by statute, and would not have substantial direct effects on the States, on the relationship between the Federal Government and the States, or on the distribution of power and responsibilities among the various levels of government. The final rule would not apply to paleontological resources managed by States or local governments or State or local governmental entities. Therefore, the Forest Service has determined that no further assessment of federalism implications is necessary.

Civil Justice Reform

This final rule has been reviewed under Executive Order 12988, Civil Justice Reform. The Forest Service has not identified any State or local laws or regulations that are in conflict with this final rule or that would impede full implementation of this final rule. Nevertheless, in the event that such a conflict was to be identified, the proposed rule would preempt the State or local laws or regulations found to be in conflict. However, in that case, no retroactive effect would be given to this rule, and the Forest Service would not require the use of administrative proceedings before parties could file suit in court challenging its provisions.

Consultation and Coordination With Indian Tribal Governments

This final rule has been reviewed under Executive Order 13175 of November 6, 2000, Consultation and Coordination With Indian Tribal Governments. It has been determined that this final rule would not have Tribal implications as defined by E.O. 13175, and therefore, advance consultation with Tribes is not required. Nonetheless, Tribal consultation was

initiated on March 7, 2011. Tribal consultation was accomplished through local and regional consultation processes in coordination with the Washington Office of the Forest Service. Input from three Tribes was received during the initial 120-day period, and Tribal comments were considered in preparing the proposed rule prior to **Federal Register** Notice on May 23, 2013 and formal solicitation of public comment. Consultation continued during the 60-day public comment period for the proposed rule. No additional comments from Tribes were received.

Energy Effects

This final rule has been reviewed under Executive Order 13211 of May 18, 2001, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. It has been determined that this final rule does not constitute a significant energy action as defined in the Executive Order.

Controlling Paperwork Burdens on the Public

In accordance with the Paperwork Reduction Act of 1995 [44 U.S.C. Chapter 35], the Forest Service requested approval of a new information collection. The proposed information collection was published at 77 FR 31298, May 25, 2012. The information collection was approved in January 2014, and has been incorporated into 0596–0082, Special Uses Administration.

Title: Paleontological Resources Preservation.

OMB Number: 0596–0082.

Expiration Date of Approval: 3 years from approval date.

Type of Request: New information collection.

Abstract: The purpose of the Paleontological Resources Preservation final rule is to establish regulations to implement a paleontological resources preservation program on National Forest System lands in which paleontological resources are managed and protected using scientific principles and expertise, in accordance with the Act. The Act at 16 U.S.C. 470aaa–3 and 4 authorizes the Secretary to issue permits for the collection of paleontological resources from public lands and enter into agreements with approved repositories. The information required by this final rule is necessary to issue permits, enter into agreements, and identify the repository institutions which house and curate paleontological resources that are collected under permit and which remain Federal property. The information requirements will be used

to help the Forest Service in the following areas:

(1) To determine that the applicant is qualified and eligible to receive a permit under the final rule,

(2) To determine if a proposal to collect paleontological resources meets the qualifications established in the law and regulations,

(3) To evaluate the impacts of a proposal in order to comply with environmental laws,

(4) To describe and document the scientific and geological context from which paleontological resources were collected,

(5) To identify and inventory paleontological resources that have been collected, and

(6) To ensure that paleontological resources that have been collected, which remain Federal property, are properly curated in an approved repository.

Qualified applicants are the only entities eligible to be issued paleontological resource collection permits, and are, therefore, the only entities from which information will be collected.

The information would be collected from respondents in the form of a permit application, and a report on authorized activities following completion of the permitted project. Permit applications are anticipated to require an average of 5.5 hours to complete, and permit reports are anticipated to require an average of 13 hours to complete, based on a limited survey of current permit holders. The information collection required for a paleontological resource collection permit application and report of permitted activity under this final rule was submitted to OMB as a new collection.

Estimated Number of Respondents: 50.

Estimated Number of Responses per Respondent: 2.

Estimated Number of Total Annual Responses: 100.

Estimated Total Annual Burden on Respondents: 925 hours.

Comments: Comments were invited on:

(1) Whether the final collection of information is necessary for the proper performance of the functions of the Agency, including whether the information will have practical utility;

(2) The accuracy of the Agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

(3) Ways to enhance the quality, utility, and clarity of the information to be collected; and

(4) Ways to minimize the burden of the collection of information on those who are to respond, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

List of Subjects

36 CFR Part 214

Appeals.

36 CFR Part 261

Law enforcement, National forests.

36 CFR Part 291

Casual collecting, Collection, Confidentiality, Curation, Education, Fair market value, Fossil, Geology, Museums, National forests, Natural resources, Paleontological resources, Paleontology, Penalties, Permits, Prohibited acts, Prohibitions, Public awareness, Public education, Public lands, Recreation, Recreation areas, Reporting and recordkeeping requirements, Repository, Research, Scientific value.

Therefore, for the reasons set forth in the preamble, the Forest Service amends chapter II of title 36 of the Code of Federal Regulations as follows:

PART 214—POSTDECISIONAL ADMINISTRATIVE REVIEW PROCESS FOR OCCUPANCY OR USE OF NATIONAL FOREST SYSTEM LANDS AND RESOURCES

■ 1. The authority citation for part 214 continues to read as follows:

Authority: 7 U.S.C. 1011(f); 16 U.S.C. 472, 551.

■ 2. In § 214.4, add paragraph (e) to read as follows:

§ 214.4 Decisions that are appealable.

* * * * *

(e) *Paleontological resources.* An authorization or permit issued under the Paleontological Resources Preservation Act of 2009 and 36 CFR part 291 for collection of paleontological resources.

PART 261—PROHIBITIONS

■ 3. The authority citation for part 261 is revised to read as follows:

Authority: 7 U.S.C. 1011(f); 16 U.S.C. 4601–6d, 472, 551, 620(f), 1133(c)–(d)(1), 1246(i).

§ 261.2 [Amended]

■ 4. In § 261.2, remove the definition for *Paleontological resource*.

§ 261.9 [Amended]

■ 5. In § 261.9, remove paragraph (i) and redesignate paragraph (j) as paragraph (i).

■ 6. Add part 291 to read as follows:

PART 291—PALEONTOLOGICAL RESOURCES PRESERVATION

- Sec.
- 291.1 Purpose.
- 291.2 Authorities.
- 291.3 Exceptions.
- 291.4 Preservation of existing authorities.
- 291.5 Definitions.
- 291.6 Confidentiality of information—general.
- 291.7 Public awareness and education.
- 291.8 Area closures.
- 291.9 Determination of paleontological resources.
- 291.10 Collecting.
- 291.11 Casual collecting on National Forest System lands.
- 291.12 National Forest System lands closed to casual collection.
- 291.13 Permits.
- 291.14 Application process.
- 291.15 Application qualifications and eligibility.
- 291.16 Terms and conditions.
- 291.17 Permit reports.
- 291.18 Modification or cancellation of permits.
- 291.19 Suspension and revocation of permits.
- 291.20 Appeals.
- 291.21 Curation of paleontological resources.
- 291.22 Becoming an approved repository.
- 291.23 Minimum requirements of approval of a repository.
- 291.24 Standards for access and use of collections.
- 291.25 Conducting inspections and inventories of collections.
- 291.26 Repository agreements.
- 291.27 Prohibited acts.
- 291.28 Civil penalty.
- 291.29 Amount of civil penalty.
- 291.30 Civil penalty process.
- 291.31 Civil penalties hearing procedures.
- 291.32 Petition for judicial review; collection of unpaid assessments.
- 291.33 Use of recovered amounts.
- 291.34 Criminal penalties.
- 291.35 Multiple offenses.
- 291.36 General exception.
- 291.37 Scientific or paleontological value.
- 291.38 Fair market or commercial value.
- 291.39 Cost of response, restoration, and repair.
- 291.40 Rewards.
- 291.41 Forfeiture.

Authority: 16 U.S.C. 470aaa through 470aaa–11.

§ 291.1 Purpose.

(a) The regulations in this part implement provisions of the Paleontological Resources Preservation Act, 16 U.S.C. 470aaa through 16 U.S.C. 470aaa–11 (hereinafter referred to as the Act), which provides for the preservation, management, and protection of paleontological resources on National Forest System lands and encourages the scientific, educational and where appropriate, the casual

collection of these resources. Paleontological resources are nonrenewable, and are an accessible and irreplaceable part of America's natural heritage.

(b) The Secretary shall manage, protect, and preserve paleontological resources on National Forest System lands using scientific principles and expertise. These regulations provide for coordinated management of paleontological resources and encourage scientific and educational use by promoting public awareness, providing for collection under permit, setting curation standards, establishing civil and criminal penalties, clarifying that paleontological resources cannot be collected from National Forest System lands for commercial purposes, and by allowing the casual collection of some of these resources on certain lands and under specific conditions.

(c) To the extent possible, the Secretary of Agriculture and the Secretary of the Interior will coordinate in the implementation of the Act.

§ 291.2 Authorities.

The regulations in this part are promulgated pursuant to the Omnibus Public Lands Act, Title VI, subtitle D on Paleontological Resources Preservation, 16 U.S.C. 470aaa through 16 U.S.C. 470aaa–11, which requires the Secretary to issue such regulations as are appropriate to carry out the Act.

§ 291.3 Exceptions.

The regulations in this part do not:

(a) Invalidate, modify, or impose any additional restrictions or permitting requirements on any activities permitted at any time under the general mining laws, the mineral or geothermal leasing laws, laws providing for mineral materials disposal, or laws providing for the management or regulation of the activities authorized by the aforementioned laws including but not limited to the Federal Land Policy and Management Act (43 U.S.C. 1701–1784), the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201–1358), and the Organic Administration Act (16 U.S.C. 478, 482, 551);

(b) Invalidate, modify, or impose any additional restrictions or permitting requirements on any activities permitted at any time under existing laws and authorities relating to reclamation and multiple uses of National Forest System lands;

(c) Apply to Indian lands;

(d) Apply to any materials associated with an archaeological resource (site), as defined in 16 U.S.C. 470, or any cultural items defined in 16 U.S.C. 30001;

(e) Apply to, or require a permit for, casual collecting of a rock, mineral, or invertebrate or plant fossil that is not protected under the Act;

(f) Affect any land other than National Forest System lands, or affect the lawful recovery, collection, or sale of paleontological resources from land other than National Forest System lands; or

(g) Create any right, privilege, benefit, or entitlement for any person who is not an officer or employee of the United States acting in that capacity. No person who is not an officer or employee of the United States acting in that capacity shall have standing to file any civil action in a court of the United States to enforce any provision or amendment made by this part.

§ 291.4 Preservation of existing authorities.

The regulations in this part do not alter or diminish the authority of the Forest Service under any other law to manage, preserve, and protect paleontological resources on National Forest System lands in addition to the protection provided under the Act or this part.

§ 291.5 Definitions.

Act means Title VI, Subtitle D of the Omnibus Public Land Management Act on Paleontological Resources Preservation (16 U.S.C. 470aaa through 470aaa–11).

Associated records means original records (or copies thereof) that document the efforts to locate, evaluate, record, study, preserve, or recover paleontological resources, including but not limited to paper and electronic documents such as:

(1) *Primary records* relating to the identification, evaluation, documentation, study, preservation, context, or recovery of a paleontological resource, regardless of format;

(2) *Public records* including, but not limited to, land status records, agency reports, publications, court documents, agreements; and

(3) *Administrative records and reports* generated by the permitting process and pertaining to the survey, excavation, or other study of the resource.

Authorized Officer means the person or persons to whom authority has been delegated by the Secretary to take action under the Act.

Casual collecting means the collecting of a reasonable amount of common invertebrate and plant paleontological resources for non-commercial personal use, either by surface collection or the use of non-powered hand tools, resulting in only negligible disturbance

to the Earth's surface and other resources.

Collection means all paleontological resources resulting from excavation or removal from National Forest System lands as well as any associated records resulting from excavation or removal from National Forest System lands under a permit.

Common invertebrate and plant paleontological resources are invertebrate or plant fossils that are of ordinary occurrence and wide-spread distribution. Not all invertebrate and plant paleontological resources are common.

Consumptive analysis means the alteration, removal, or destruction of a paleontological specimen, or parts thereof, from a collection for scientific research.

Curatorial services and curation mean those activities pertinent to management and preservation of a collection over the long term according to professional museum and archival practices, including at a minimum:

- (1) Accessioning, cataloging, labeling, and inventorying a collection;
- (2) Identifying, evaluating, and documenting a collection;
- (3) Storing and maintaining a collection using appropriate methods and containers, and under appropriate environmental conditions and physical security controls;
- (4) Periodically inspecting a collection and taking such actions as may be necessary to preserve it;
- (5) Providing access and facilities to study a collection;
- (6) Handling, cleaning, sorting, and stabilizing a collection in such a manner as to preserve it; and
- (7) Lending a collection, or parts thereof, for scientific, educational or preservation purposes.

Federal land means land controlled or administered by the Secretary except for Indian land as defined in 16 U.S.C. 470aaa.

Fossil means any fossilized remains, traces, or imprints of organisms, preserved in or on the Earth's crust.

Fossilized means preserved by natural processes, including, but not limited to burial in accumulated sediments, preservation in ice or amber, or replacement by minerals, or alteration by chemical processes such as permineralization whereby minerals are deposited in the pore spaces of the hard parts of an organism's remains, which may or may not alter the original organic content.

Indian land means land of Indian tribes, or Indian individuals, which are either held in trust by the United States

or subject to a restriction against alienation imposed by the United States.

National Forest System lands means those lands in a nationally significant system of federally owned units of forest, range, and related lands consisting of national forests, purchase units, national grasslands, land utilization project areas, experimental forest areas, experimental range areas, designated experimental areas, other land areas, water areas, and interests in lands that are administered by the Forest Service, U.S. Department of Agriculture, or designated for administration through the Forest Service. As used herein, the term "National Forest System lands" refers to Federal land controlled or administered by the Secretary of Agriculture.

Negligible disturbance means little or no change to the surface of the land and causing minimal or no effect on other resources. The Authorized Officer has discretion to determine what constitutes negligible disturbance.

Non-commercial personal use means uses other than for purchase, sale, financial gain, or research. Research, in the context of these regulations, is considered to be a structured activity undertaken by qualified individuals with the intent to obtain and disseminate information via publication in a peer-reviewed professional scientific journal or equivalent venue, which increases the body of knowledge available to a scientific community.

Non-powered hand tools mean small tools that do not use or are not operated by a motor, engine, or other power source. These tools are limited to small tools that can be easily carried by hand such as geologic hammers, trowels, or sieves, but not large tools such as full-sized shovels or pick axes.

Paleontological locality, location, and site mean a geographic area where a paleontological resource is found. Localities, locations, and sites may be relatively large or small.

Paleontological resource means any fossilized remains, traces, or imprints of organisms, preserved in or on the earth's crust, that are of paleontological interest, and that provide information about the history of life on earth. The term does not include:

- (1) Any materials associated with an archaeological resource (as defined in section 3(1) of the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470bb(1)); or
- (2) Any cultural item (as defined in section 2 of the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001)).

Paleontological site is used interchangeably with paleontological

locality or location, but is never intended to be synonymous with "archaeological site."

Reasonable amount means a maximum per calendar year of one-hundred pounds by weight, not to exceed twenty-five pounds per day.

Repository means a facility, such as a museum, paleontological research center, laboratory, or an educational or storage facility managed by a university, college, museum, other educational or scientific institution, or a Federal, State or local government agency that is capable of providing professional curatorial services on a long-term basis.

Repository agreement means a formal written agreement between the Authorized Officer and the repository official in which the parties agree on how the repository will provide curatorial services for collections.

Repository official means any officer, employee, or agent officially representing the repository that is providing curatorial services for a collection that is subject to this part.

Secretary means the Secretary of Agriculture with respect to National Forest System lands controlled or administered by the Secretary of Agriculture.

State means the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, and any other territory or possession of the United States.

§ 291.6 Confidentiality of information—general.

(a) Information concerning the nature and specific location of a paleontological resource is exempt from disclosure under the Freedom of Information Act (FOIA) (5 U.S.C. 552), unless the Authorized Officer has made a written determination that disclosure would:

- (1) Further the purposes of the Act and this part;
- (2) Not create risk of harm to or theft or destruction of the resource or the site containing the resource; and
- (3) Be in accordance with other applicable laws.

(b) *Sharing protected information does not constitute a disclosure.* The Authorized Officer may share information concerning the nature and specific location of a paleontological resource with non-Agency personnel for scientific, educational, or resource management purposes. A recipient of such information may be required to sign a confidentiality agreement in which the recipient agrees not to share the information with anyone not authorized to receive the information.

§ 291.7 Public awareness and education.

The Chief of the Forest Service will establish a program to increase public awareness about the significance of paleontological resources on National Forest System lands.

§ 291.8 Area closures.

(a) In order to protect paleontological or other resources or to provide for public safety, the Authorized Officer may restrict access to or close areas to the collection of paleontological resources.

(b) The regulations in this part do not preclude the use of other authorities that provide for area closures.

§ 291.9 Determination of paleontological resources.

(a) All paleontological resources on National Forest System lands will be managed, protected, and preserved in accordance with the regulations in this part unless the Authorized Officer determines that such resources are not paleontological resources in accordance with paragraph (b) of this section.

(b) Using scientific principles and expertise, the Authorized Officer may determine that certain paleontological resources do or do not meet the definition of "paleontological resource" as set forth in these regulations, and therefore, whether or not such resources are covered by the Act or this Part.

(c) Determinations as described in paragraph (b) of this section are subject to the following conditions:

(1) A recommendation for determination must be in writing and be prepared by a paleontologist with demonstrated subject matter expertise in the specific group of paleontological resources under consideration.

(2) An Agency paleontologist will review the basis for the determination and make a recommendation to the Authorized Officer concerning the determination.

(3) The Authorized Officer will make the final determination based upon the recommendation of an Agency paleontologist and will ensure that the basis for the determination is documented, and that the determination is made available to the public.

(4) Any determination made pursuant to this section will in no way affect the Authorized Officer's obligations under the Act or other applicable laws or regulations to manage, protect, or preserve all paleontological resources.

(d) On National Forest System lands, the following are not paleontological resources for purposes of the Act or this part:

(1) Mineral resources, including coal, oil, natural gas, and other economic

minerals that are subject to the existing mining and mineral laws;

(2) Petrified wood as defined at 30 U.S.C. 611 and managed under 36 CFR 228.62 unless determined under paragraph (b) of this section to be a paleontological resource;

(3) Geological units, including, but not limited to, limestones, diatomites, and chalk beds).

§ 291.10 Collecting.

A paleontological resource may only be collected from National Forest System lands in accordance with the casual collecting provisions in §§ 291.11 and 291.12, or in accordance with a permit issued by the Authorized Officer as identified in § 291.13.

§ 291.11 Casual collecting on National Forest System lands.

(a) Casual collecting is allowed without a permit on National Forest System lands where such collection is consistent with the laws governing the management of those lands, the land management plans, and where the lands in question are not closed to casual collection.

(b) National Forest System lands are open to casual collection unless otherwise closed, as described in § 291.12.

(c) Research activities do not constitute casual collection, and therefore, research involving the collecting of common invertebrate and plant paleontological resources requires a permit.

(d) Using scientific principles and expertise, the Authorized Officer may determine that certain invertebrate and plant paleontological resources do or do not meet the definition of "common invertebrate and plant paleontological resources" as set forth in these regulations, and thus, whether such resources can be casually collected or must be collected under permit.

(e) Determinations as described above in paragraph (d) of this section are subject to the conditions as stated in § 291.9(c)(1) through (4).

(f) It is the responsibility of the collecting public to ensure that they are casually collecting in an area that is open to casual collection, and that the materials they collect are subject to casual collection.

(g) Paleontological resources collected on National Forest System lands, including common invertebrate and plant paleontological resources subject to casual collecting, cannot be sold. Sale of these paleontological resources is a violation of 16 U.S.C. 470aaa-5(a)(3) and § 291.27(a)(3) and may subject the violator to civil and criminal penalties.

§ 291.12 National Forest System lands closed to casual collection.

(a) Casual collecting is not allowed in:

- (1) National Monuments within the National Forest System; and

- (2) Other National Forest System lands closed to casual collecting in accordance with this Part, other statutes, executive orders, regulations, or land use plans.

(b) Existing closures of certain areas to casual collecting, authorized under separate authority, remain closed under these regulations.

§ 291.13 Permits.

(a) The Authorized Officer may issue a permit for the collection of a paleontological resource pursuant to an application if the Authorized Officer determines that:

- (1) The applicant is qualified to carry out the permitted activity;

- (2) The permitted activity is undertaken for the purpose of furthering paleontological knowledge;

- (3) The permitted activity is consistent with any management plan applicable to the National Forest System lands concerned; and

- (4) The proposed methods of collection will not threaten significant natural or cultural resources pursuant to 16 U.S.C. 470aaa-3(b)(4).

- (5) Collected materials will not be sold or otherwise used for commercial purposes.

(b) Permits may be issued at the Authorized Officer's discretion to applicants that provide a complete application, as provided in § 291.14, and meet qualification and eligibility requirements in § 291.15.

§ 291.14 Application process.

Applicants for permits must provide the following records and information to the Authorized Officer in support of an application.

- (a) The name, titles, academic or professional affiliations, and business contact information of the applicant and all persons who would be named on the permit;

- (b) The applicant's current resume, curriculum vita, or other documents that support an applicant's qualifications;

- (c) A detailed scope of work or research plan for the proposed activity. This must include maps, field methods, associated records, estimated time and duration of field season, proposed field party size, and specific information regarding storage, stabilization, and curatorial arrangements for collected specimens and data;

- (d) Information regarding previous or currently held Federal paleontological

permits including the issuing agency, permit number, and name of the Authorized Officer;

(e) Identification of a proposed repository for collected specimens, including written verification that the proposed repository agrees to receive the collection of paleontological resources and associated records and acknowledges that all costs will be borne by the applicant and/or approved repository, unless otherwise addressed in a separate written document; and

(f) Other records or information identified by the Authorized Officer as necessary to support an application for a permit.

§ 291.15 Application qualifications and eligibility.

(a) *Qualified applicant.* The information submitted by applicants under § 291.14 must demonstrate qualifications for carrying out the proposed activities, as follows:

(1) The applicant has a graduate degree in paleontology or a related field of study with a major emphasis in paleontology from an accredited institution, or can demonstrate training and/or experience commensurate to the nature and scope of the proposed activities; and

(2) The applicant has experience in collecting, analyzing, summarizing, and reporting paleontological data and experience in planning, equipping, staffing, organizing, and supervising field crews on projects commensurate to the type, nature and scope of work proposed in the application; and

(3) The applicant meets any additional qualifications as may be required by the Authorized Officer that are considered necessary to undertake the proposed project in the context of the project location.

(b) *Eligibility.* The information submitted by applicants under § 291.14 must demonstrate that the proposed work is eligible for a permit in accordance with § 291.13(a)(2) through (4).

§ 291.16 Terms and conditions.

The collection of paleontological resources pursuant to a permit must be conducted in accordance with the following terms and conditions:

(a) All paleontological resources that are collected from National Forest System lands under permit will remain the property of the United States.

(b) The collection will be preserved in an approved repository to be made available for scientific research and public education.

(c) Specific locality data will not be released by the permittee or repository

unless authorized in accordance with § 291.6.

(d) The permittee recognizes that the area within the scope of the permit may be subject to other authorized uses.

(e) The permittee must conform to all applicable Federal, State, and local laws.

(f) The permittee must assume responsibility for all work conducted under the permit and the actions of all persons conducting this work.

(g) The permit cannot be transferred.

(h) The permittee cannot modify the permit without the approval of the Authorized Officer.

(i) The permittee must comply with all timelines established in the permit, and must request modification of the permit if those timelines cannot be met.

(j) The permittee or other persons named on the permit must be on site at all times when field work is in progress and will have a copy of the signed permit on hand.

(k) The permittee will comply with any vehicle or access restrictions, safety or environmental restrictions, or local safety conditions or restrictions.

(l) The permittee will report suspected resource damage or theft of paleontological or other resources to the Authorized Officer in a timely manner after learning of such damage or theft.

(m) The permittee will acknowledge the Forest Service in any report, publication, paper, news article, film, television program, or other media resulting from the permittee's work performed under the permit.

(n) The permittee will comply with the timeline established in the permit for providing a complete list to the Authorized Officer of specimens collected and the current location of the specimens.

(o) The permittee will provide scheduled reports to the Authorized Officer within the timeline established in the permit

(p) The permittee and/or approved repository will be responsible for all costs for the proposed activity, including fieldwork and collections maintenance, unless otherwise addressed in a separate written document

(q) The permittee will comply with the permit terms and conditions established by the Authorized Officer, even in the event of permit expiration, suspension, or revocation.

(r) Additional stipulations, terms, and conditions as required by the Authorized Officer and/or the Agency may be appended.

§ 291.17 Permit reports.

Permit reports must contain the following information as appropriate:

(a) Permittee(s)' name, title, affiliation, and professional contact information;

(b) Permit number;

(c) Date of report;

(d) Project name, number, or reference;

(e) Description of project, methodology, or summary of research scope of work;

(f) Dates of field work;

(g) Name(s) of people who performed field work;

(h) Description of work performed or accomplished and a summary of results and discoveries;

(i) Summary of regional or local geology and/or paleontology including context, geography, stratigraphy, and geological unit;

(j) Identification of potential impacts to paleontological resources by proposed land use action;

(k) Mitigation recommendations to address potential paleontological resource impacts;

(l) Relevant literature citations;

(m) Relevant associated records, including anything that aids in explaining, clarifying, or understanding the findings;

(n) Listing of collected paleontological resources, including field numbers and field identifications that are referenced to specific localities;

(o) Repository name, identifying acronym, and address;

(p) Repository official name, title, and contact information;

(q) Approved repository accession and/or catalog number(s);

(r) Assigned locality numbers;

(s) Administrative area (State, county, ranger district, forest, and so forth);

(t) Map name, source, size, edition, projection, datum, and/or other mapping information;

(u) Geographic location, survey data, and/or related metadata;

(v) Paleontological taxa collected, observed, or in a repository;

(w) Resource identifications, condition, location, and quantity; and

(x) Recommendations or information for the approved repository regarding the condition or care of collected resources or associated records.

§ 291.18 Modification or cancellation of permits.

The Authorized Officer may modify a permit, consistent with applicable laws and policies, when:

(a) The Authorized Officer determines that there are management, administrative, or safety reasons to modify a permit; or

(b) A permittee requests a modification in writing.

§ 291.19 Suspension and revocation of permits.

(a) The Authorized Officer may suspend or revoke a permit issued under this section;

(1) For resource, safety or other management considerations; or

(2) When there is a violation of term or condition of a permit issued under this section.

(b) The permit shall be revoked if any person working under the authority of the permit is convicted of a violation under section 16 U.S.C. 470aaa 6306 or is assessed a civil penalty under 16 U.S.C. 470aaa 6307.

(c) Suspensions, modifications, and revocations shall be administered in accordance with the procedures set forth in 36 CFR part 214.

§ 291.20 Appeals.

A permittee may appeal the denial or revocation of a permit in accordance with 36 CFR part 214. Pending the appeal, the decision of the Authorized Officer remains in effect unless determined otherwise in accordance with 36 CFR part 214, subpart C.

§ 291.21 Curation of paleontological resources.

Collections from National Forest System lands made under a permit issued according to this Part will be deposited in an approved repository. The curation of paleontological resources collected from National Forest System lands before the effective date of these regulations is covered under the terms of the original collection permit and/or agreement. Such collections remain Federal property unless otherwise transferred or disposed of in a Forest Service agreement.

§ 291.22 Becoming an approved repository.

(a) A repository identified during the permit application process in § 291.14 must be approved to receive collections by the Authorized Officer as follows:

(1) A repository must meet the minimum requirements in § 291.23 in order to be approved.

(2) A repository must agree in writing that collections:

(i) Remain the property of the Federal government;

(ii) Will be preserved for the public in accordance with § 291.24;

(iii) Will be made available for scientific research and public education; and

(iv) That specific locality data will not be released except in accordance with § 291.6.

(b) The Authorized Officer and the repository official may enter into a

formal agreement that explains the responsibilities of the parties for the curation of the collection in accordance with § 291.26.

(c) The repository must agree in writing to periodic inventory and inspection of the collections as described in § 291.25.

(d) Prior to depositing the collection, an Agency paleontologist in consultation with the repository official will determine the content of the collection to be curated based on scientific principles and expertise. A copy of the final catalog will be provided by the repository to the Authorized Officer.

(e) A repository approved by a Federal agency or bureau may be considered an approved repository by the Forest Service.

§ 291.23 Minimum requirements of approval of a repository.

The Authorized Officer will determine whether a facility should be an approved repository based on whether the repository has:

(a) The capability to provide adequate curatorial services as defined in § 291.5;

(b) A scope of collections statement or similar policy that identifies paleontological resources as part of its scope of collections;

(c) A current collections management plan, including but not limited to policies for documentation, loans, and access; and

(d) Staff with primary responsibility for managing and preserving the collections that have training or experience in the curation of paleontological resources at levels appropriate to the nature and use of the paleontological collections maintained by that repository.

§ 291.24 Standards for access and use of collections.

(a) The repository will make collections available for scientific research and public education or as otherwise provided in a repository agreement.

(b) The repository may provide access to specific locality data and associated records when consistent with an approval under § 291.22 or an agreement under § 291.26.

(c) The repository may loan specimens after entering into a signed loan agreement with the borrowing institution. The loan agreement must specify the terms and conditions of the loan and that the repository is responsible for care and maintenance of the loaned specimens.

(d) The repository must maintain administrative records of all scientific and educational uses of the collection.

(e) The repository may charge reasonable fees to cover costs for access to and use of collections, including handling, packing, shipping, and insuring paleontological resources, photocopying associated records and other occasional costs not associated with ongoing curatorial services.

(f) The following uses of the collection will require written approval from the Authorized Officer, in consultation with an Agency paleontologist, unless specified in the approval in § 291.22 or an agreement under § 291.26:

(1) Prior to reproducing a paleontological resource, the repository will notify and obtain approval from the Authorized Officer. Reproductions include, but are not limited to, molding and casting, and computerized axial tomography (CAT) scans. Routine photographic and/or digital reproductions would not require individual approvals, providing the reproductions are not made for commercial purposes, and that the reproductions do not require transfer of the specimen(s) to a different facility.

(2) The repository may only allow consumptive analysis of specimens if the Authorized Officer has determined, in consultation with an Agency paleontologist, that the potential gain in scientific or interpretive information outweighs the potential loss of the paleontological resource and provides the repository with written authorization for such use.

§ 291.25 Conducting inspections and inventories of collections.

(a) The repository and the Authorized Officer must ensure that inspections and inventories of collections are in accordance with the Federal Property and Administrative Services Act (40 U.S.C. 541 *et seq.*), its implementing regulations (41 CFR parts 101 and 102), any Agency-specific regulations on the management of Federal property, and any Agency-specific statutes and regulations on the management of museum collections.

(b) The frequency and methods for conducting and documenting inspections and inventories will be appropriate to the nature and content of the collection.

(c) When two or more Federal agencies deposit collections in the same repository, they may enter into an interagency agreement consistent with the Single Audit Act (31 U.S.C. 75) for inspections and inventories.

§ 291.26 Repository agreements.

(a) The Authorized Officer may enter into an agreement with Federal and

non-Federal repositories regarding the curation of paleontological resources and their associated records.

(b) An agreement will contain the following, as appropriate, including but not limited to:

(1) A statement (updated as necessary) that identifies the collection or group of collections provided to the repository;

(2) A statement that identifies the Federal ownership and the Agency that administers the collection;

(3) A statement of work to be performed by the repository;

(4) A statement of the responsibilities of the Authorized Officer and the repository official for the long-term care of the collection;

(5) A statement that collections are available for scientific and educational uses consistent with § 291.22;

(6) Any special procedures and restrictions for curatorial services and collection management, including loans;

(7) Provisions for consumptive analyses of paleontological specimens;

(8) Any special procedures and/or restrictions on the disclosure of specific locality data;

(9) A statement that all proceeds derived from any use of the collections will be used for their support;

(10) A statement that all exhibits, publications, and studies of Federal specimens by repository staff and/or repository research affiliates will credit the Agency that administers the collection;

(11) Specification of the frequency and methods for periodic inventories;

(12) A statement that accession, catalog, and inventory information will be made available to the Authorized Officer or their staff

(13) A statement that no employee of the repository will sell or financially encumber the collection;

(14) A statement that, in the event the repository can no longer provide care for a collection under the terms of the agreement, the repository official will notify the Authorized Officer in writing;

(15) A statement that the terminating party is responsible for the transfer of collections to another approved repository, including costs;

(16) The term of the repository agreement and procedures for modification, cancellation, suspension, extension, and termination of the agreement; and

(17) Any additional terms and conditions as needed.

§ 291.27 Prohibited acts.

(a) A person may not:

(1) Excavate, remove, damage, or otherwise alter or deface or attempt to excavate, remove, damage, or otherwise

alter or deface any paleontological resources located on National Forest System lands unless such activity is conducted in accordance with the Act and this part;

(2) Exchange, transport, export, receive, or offer to exchange, transport, export, or receive any paleontological resource if the person knew or should have known such resource to have been excavated or removed from National Forest System lands in violation of any provisions, rule, regulation, law, ordinance, or permit in effect under Federal law, including the Act and this part; or

(3) Sell or purchase or offer to sell or purchase any paleontological resource if the person knew or should have known such resource to have been excavated, removed, sold, purchased, exchanged, transported, or received from National Forest System lands.

(b) A person may not make or submit any false record, account, or label for, or any false identification of, any paleontological resource excavated or removed from National Forest System lands.

§ 291.28 Civil penalty.

(a) A person who violates any prohibition contained in this Part or permit issued under this Part may be assessed a penalty by the Authorized Officer after the person is given notice and opportunity for a hearing with respect to the violation, as provided in §§ 291.30 and 291.31.

(b) Each violation is considered a separate offense.

§ 291.29 Amount of civil penalty.

(a) *Determination of civil penalty amount.* The amount of such penalty assessed under § 291.28 shall be determined by taking into account:

(1) The scientific or fair market value, whichever is greater, of the paleontological resource involved, as determined by the Authorized Officer, and

(2) The cost of response to and restoration and repair of the resource and the paleontological site involved, and

(3) Any other factors under §§ 291.37 through 291.39 considered relevant by the Authorized Officer in assessing the penalty.

(b) *Multiple offenses.* In the case of subsequent or repeated violations by the same person, the amount of a penalty assessed under § 291.28(a) may be doubled.

(c) *Maximum amount of penalty.* The amount of any penalty assessed for any one violation shall not exceed an amount equal to double the cost of

response to, and restoration and repair of resources and paleontological site damage plus double the scientific or fair market value of resources destroyed or not recovered.

(d) *Determination of scientific and fair market values and cost of response to, and restoration and repair.* Scientific and fair market values and the cost of response to, and restoration and repair are determined as described in §§ 291.37 through 291.39.

§ 291.30 Civil penalty process.

(a) *Notice of violation.* The Authorized Officer shall serve a notice of violation by certified mail (return receipt requested) or other type of verifiable delivery upon any person believed to be subject to a civil penalty. The Authorized Officer shall include in the notice:

(1) A concise statement of the facts believed to show a violation;

(2) A specific reference to the section(s) of this part or to a permit issued pursuant to this part allegedly violated;

(3) The penalty proposed;

(4) Notification of the right to request a hearing in accordance with paragraph (f) of this section. The notice shall also inform the person of the right to seek judicial review of any final administrative decision assessing a civil penalty.

(b) *Response to notice of violation.* The person served with a notice of violation shall have 45 calendar days from the date of mailing in which to respond. During this time the person may:

(1) Accept the proposed penalty, either in writing or by payment. Acceptance of the proposed penalty will be deemed a waiver of the right to request a hearing as described in paragraph (f) in this section.

(2) Seek informal discussions with the Authorized Officer;

(3) File a written response. This written response must be filed with the Authorized Officer within 45 calendar days of the date of mailing of the notice of violation, and must be signed by the person served with the notice of violation. If the person is a corporation, the written response must be signed by an officer authorized to sign such documents. The written response will set forth in full the legal or factual basis for the requested relief.

(4) Request a hearing in accordance with paragraph (f) of this section.

(c) *Assessment of penalty.* (1) The Authorized Officer shall assess a civil penalty upon completion of the 45 calendar day response period, informal

discussions, or review of the written response, whichever is later.

(2) The Authorized Officer shall take into consideration all available information, including information provided under paragraph (b) of this section or furnished upon further request by the Authorized Officer.

(3) If the facts warrant a conclusion that no violation has occurred, the Authorized Officer shall notify the person served with the notice of violation that no violation has occurred and no penalty will be assessed.

(4) Where the facts warrant a conclusion that a violation has occurred, the Authorized Officer shall determine a penalty amount in accordance with § 291.29.

(d) *Penalty modification and remittance.* The Authorized Officer may offer to modify or remit the penalty. Modification or remittance may be based upon any or all of the following factors:

(1) Agreement by the person being assessed a civil penalty to return to the Authorized Officer paleontological resources removed from National Forest System lands;

(2) Agreement by the person being assessed a civil penalty to assist the Authorized Officer in activity to preserve, restore, or otherwise contribute to the protection and study of paleontological resources on National Forest System lands;

(3) Agreement by the person being assessed a civil penalty to provide information which will assist in the detection, prevention, or prosecution of violations of the Act or this part;

(4) Determination that the person being assessed a civil penalty did not willfully commit the violation;

(5) Determination of other mitigating circumstances appropriate to consideration in reaching a fair and expeditious assessment.

(e) *Notice of assessment.* The Authorized Officer shall serve a written notice of assessment upon the person served with a notice of violation. The notice of assessment establishes the penalty amount assessed by the Authorized Officer and is served by certified mail (return receipt requested), or other type of verifiable delivery. The Authorized Officer shall include in the notice of assessment:

(1) The facts and conclusions from which it was determined that a violation did occur;

(2) The basis for determining the penalty amount assessed and/or any offer to mitigate or remit the penalty; and

(3) Notification of the right to request a hearing, including the procedures to

be followed, and to seek judicial review of any final administrative decision assessing a civil penalty.

(f) *Hearings.* (1) Except where the right to request a hearing is deemed to have been waived as provided in paragraph (b)(1) of this section, the person served with a notice of assessment may file a written request for a hearing with the hearing office specified in the notice. The person shall enclose with the request for hearing a copy of the notice of assessment, and shall deliver the request for hearing by certified mail (return receipt requested), as specified in the notice of assessment.

(2) Failure to deliver a written request for a hearing within 45 calendar days of the date of mailing of the notice of assessment shall be deemed a waiver of the right to a hearing.

(3) Any hearing conducted pursuant to this section shall be held in accordance with 5 U.S.C. 554. In any such hearing, the amount of civil penalty assessed shall be determined in accordance with §§ 291.28 through 291.33, and shall not be limited by the amount assessed by the Authorized Officer under § 291.29(a) or any offer of mitigation or remission made by the Authorized Officer.

(g) *Final administrative decision.* (1) Where the person served with a notice of violation has accepted the penalty pursuant to paragraph (b)(1) of this section, the notice of violation shall constitute the final administrative decision;

(2) Where the person served with a notice of assessment has not requested a hearing within 45 calendar days of the date of mailing of the notice of assessment, the notice of assessment shall constitute the final administrative decision;

(3) Where the person served with a notice of assessment has filed a timely request for a hearing, the decision resulting from the hearing shall constitute the final administrative decision.

(h) *Payment of penalty.* The person assessed a civil penalty shall have 45 calendar days from the date of issuance of the final administrative decision in which to make full payment of the penalty assessed, unless a timely request for appeal has been filed with a U.S. District Court as provided in § 291.32.

(i) *Other remedies not waived.* Assessment of a penalty under this section shall not be deemed a waiver of the right to pursue other available legal or administrative remedies.

§ 291.31 Civil penalties hearing procedures.

(a) *Requests for hearings.* Any person wishing to request a hearing on a notice of assessment of civil penalty may file a written dated request for a hearing with the hearing office specified in the notice. The person shall enclose a copy of the notice of violation and the notice of assessment. The request shall state the relief sought, the basis for challenging the facts used for assessing the penalty, and the person's preference as to the place and date for a hearing. A copy of the request shall be served upon the USDA Office of the General Counsel by certified mail, at the addresses specified in the notice of assessment. Hearings shall be conducted in accordance with 5 U.S.C. 554.

(b) *Commencement of hearing procedures.* Upon receipt of a request for a hearing, the hearing office shall assign an administrative law judge to the case. Notice of assignment shall be given promptly to the parties, and thereafter, all pleadings, papers, and other documents in the proceeding shall be filed directly with the administrative law judge, with copies served on the opposing party.

(c) *Appearance and practice.* (1) The respondent may appear in person, by representative, or by counsel, and may participate fully in the proceedings. If respondent fails to appear and the administrative law judge determines such failure is without good cause, the administrative law judge may, in his/her discretion, determine that such failure shall constitute a waiver of the right to a hearing and consent to the making of a decision on the record made at the hearing.

(2) Departmental counsel shall represent the Agency in the proceedings. Upon notice to the Authorized Officer of the assignment of an administrative law judge to the case, said counsel shall enter his/her appearance on behalf of the Agency and shall file all petitions and correspondence exchanges by the Agency and the respondent which shall become part of the hearing record. Thereafter, service upon the Agency shall be made to Departmental counsel.

(d) *Hearing administration.* (1) The administrative law judge shall have all powers accorded by law and necessary to preside over the parties and the proceedings and to make decisions in accordance with 5 U.S.C. 554 through 557.

(2) The transcript of testimony; the exhibits; and all papers, documents and requests filed in the proceedings shall constitute the record for decision. The administrative law judge shall render a

written decision upon the record, which shall set forth his/her findings of fact and conclusions of law, and the reasons and basis therefore, and an assessment of a penalty, if any.

(3) The administrative law judge's decision shall become effective 30 calendar days from the date of this decision.

§ 291.32 Petition for judicial review; collection of unpaid assessments.

(a) *Judicial review.* Any person against whom a final administrative decision is issued assessing a penalty may file a petition for judicial review of the decision in the U.S. District Court for the District of Columbia or in the district in which the violation is alleged to have occurred within the 30 calendar day period beginning on the date the decision was issued. Upon notice of such filing, the Secretary shall promptly file such a certified copy of the record on which the decision was issued. The court shall hear the action on the record made before the Secretary and shall sustain the action if it is supported by substantial evidence on the record considered as a whole. Judicial review is limited by the requirement to exhaust administrative remedies under 7 U.S.C. 6912(e).

(b) *Failure to pay.* Failure to pay a penalty assessed is a debt to the U.S. Government. If any person fails to pay a penalty within 30 calendar days after the final administrative decision and the person has not filed a petition for judicial review of the decision in accordance with paragraph (a) of this section; or after a court in an action brought in paragraph (a) of this section has entered a final judgment upholding the assessment of the penalty, the Secretary may request the Attorney General to institute a civil action in a district court of the United States for any district in which the person is found, resides, or transacts business, to collect the penalty (plus interest at currently prevailing rates from the date of the final decision or the date of the final judgment, as the case may be). The district court shall have jurisdiction to hear and decide any such action. In such action, the validity, amount, and appropriateness of such penalty shall not be subject to review. Any person who fails to pay on a timely basis the amount of an assessment of a civil penalty shall be required to pay, in addition to such amount and interest, attorney's fees and costs for collection proceedings. This section does not preclude the use of other collection methods such as Treasury offset, where appropriate.

§ 291.33 Use of recovered amounts.

Penalties and/or restitution collected shall be available to the Authorized Officer and without further appropriation may be used only as follows:

(a) To protect, restore, or repair the paleontological resources and sites which were the subject of the action, and to protect, monitor, and study the resources and sites; and/or

(b) To provide educational materials to the public about paleontological resources, sites, and their protection; and/or

(c) To provide for the payment of rewards as provided in § 291.40.

§ 291.34 Criminal penalties.

(a) A person who knowingly violates or counsels, procures, solicits, or employs another person to violate § 291.27 shall, upon conviction, be fined in accordance with Title 18, United States Code, or imprisoned not more than 5 years, or both; but if the sum of the commercial and paleontological value of the paleontological resources involved and the cost of restoration and repair of such resources does not exceed \$500, such person shall be fined in accordance with Title 18, United States Code, or imprisoned not more than 2 years, or both.

(b) Paleontological and commercial values and the cost of restoration and repair are determined under §§ 291.37 through 291.39.

§ 291.35 Multiple offenses.

In the case of subsequent or repeat violations by the same person, the amount of the monetary penalty assessed may be doubled.

§ 291.36 General exception.

The provisions in §§ 291.28 through 291.35 do not apply to any person with respect to any paleontological resource which was in the lawful possession of such person prior to the date of enactment of the Act.

§ 291.37 Scientific or paleontological value.

The scientific value of any paleontological resource involved in a violation of the prohibitions contained in this part or conditions of a permit issued pursuant to this Part shall be the value of the information associated with the paleontological resource. The term "scientific value" can be used interchangeably with the term "paleontological value." This value shall be determined in terms of the costs of the retrieval of the scientific and educational information which would have been obtainable prior to the

violation. These costs may include, but need not be limited to, the cost of preparing a research design, conducting field work, carrying out laboratory analysis, and preparing reports or educational materials or displays as would be necessary to realize the information potential.

§ 291.38 Fair market or commercial value.

The fair market value of any paleontological resource involved in a violation of the prohibitions contained in this part or conditions of a permit issued pursuant to this part shall be the commercial value of the resources, determined using the condition of the paleontological resource prior to the violation, to the extent that its prior condition can be ascertained. The term "fair market value" can be used interchangeably with the term "commercial value." Fair market value of paleontological resources can be established through the use of comparable sales or pricing information, advertisements for comparable resources, appraisals, and/or other information on legal or illegal markets.

§ 291.39 Cost of response, restoration, and repair.

The cost of response, restoration, and repair of paleontological resources involved in a violation of prohibitions contained in this part or conditions of a permit issued pursuant to this part, shall be the sum of the costs incurred for response, investigation, assessment, emergency restoration, or repair work, plus those costs projected to be necessary to complete restoration and repair, which may include but need not be limited to the costs of:

(a) Reconstruction of the paleontological resource;

(b) Stabilization and/or salvage of the paleontological resource;

(c) Ground contour reconstruction and surface stabilization;

(d) Research necessary to carry out reconstruction or stabilization;

(e) Physical barriers or other protective devices or signs, necessitated by the disturbance of the paleontological resource, to protect it from further disturbance;

(f) Examination and analysis of the paleontological resource including recording remaining paleontological information, where necessitated by disturbance, in order to salvage remaining values which cannot be otherwise conserved;

(g) Storage, preparation, and curation;

(h) Site monitoring; and

(i) Preparation of reports relating to any of the above activities.

§ 291.40 Rewards.

(a) The Authorized Officer may, at his or her discretion, pay from penalties collected under §§ 291.28 through 291.36, or from appropriated funds, an amount up to half of the penalties collected to any person who furnishes information which leads to a finding of the civil violation(s) or to the criminal conviction(s).

(b) If several persons provided the information, the amount may be divided at the discretion of the Authorized Officer among the persons.

(c) No officer or employee of the United States or of any State or local government who furnishes information or renders service in the performance of their official duties shall be eligible for payment.

§ 291.41 Forfeiture.

(a) *Forfeiture.* All paleontological resources with respect to which a violation under §§ 291.28 through 291.36 occurred and which are in the possession of any person, are subject to forfeiture proceedings. All forfeitures will be initiated pursuant to cooperative agreements with agencies having law

enforcement authority and forfeiture regulations in place.

(b) *Transfer of administration of forfeited resources.* The administration of forfeited resources may be transferred to Federal or non-Federal institutions to be used for scientific or educational purposes, in furtherance of the purposes of the Act.

Dated: March 11, 2015.

Robert Bonnie,

Under Secretary, Natural Resources and Environment.

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